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MONTHLY LABOR REVIEW

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

HUGH S. HANNA, EDITOR

CONTENTS

JUNE 1940 Vol. 50 No. 6

Special articles: Page

Employment prospects in the petroleum and natural-gas industry ... 1293
Trends of manufacturing employment, 1929 to 1937 ... 1308
Share-the-work provisions in union agreements ... 1340
Expenditures of wage earners and clerical workers for housefurnishings and operation ... 1349

National income:

State and regional differences in income payments, 1929 to 1938 ... 1367

Wartime emergency controls:

Wartime requisitioning of woman workers in France ... 1373
Labor policy in Germany ... 1374
Organization of employment in Japan ... 1376
Government control of port activity in Auckland, New Zealand ... 1377

Employment and labor conditions:

Dictionary of Occupational Titles ... 1379
Economic effects of shut-down of Amoskeag textile mills ... 1380
Chinese measures dealing with unemployment ... 1384
Displacement of native farmers by Japanese in Manchuria ... 1385
Japanese factory canteens ... 1388

Social security:

Placement work of Public Employment Services, April 1940 ... 1389
Unemployment-compensation operations, April 1940 ... 1393
Programs for benefit of Brazilian labor ... 1396
British unemployment-insurance fund in 1939 ... 1403

Labor organizations:

Canadian trade-union benefits, 1938 ... 1409
Organization of trade-unions in Spain ... 1409

Education and training:

Vocational education, 1938–39 ... 1411
Vocational rehabilitation, 1938–39 ... 1414

Migratory labor:

Migratory strawberry pickers ... 1416

Youth problems:

Youth attitudes on economic problems ... 1418

Legal aid:

Legal aid to the poor in Switzerland ... 1420

232284—40—1

Page

Labor laws and court decisions:

Prison-labor legislation, as of June 1, 1940 ... 1422
Railroad legislation on full crew, personnel, and train lengths ... 1429
Court decisions of interest to labor:
Applicability of antitrust law to labor unions ... 1434
Antipicketing laws held unconstitutional ... 1436
Order requiring reinstatement of steel strikers sustained ... 1437
Employer convicted of evading New York home-work law ... 1438
Death superinduced by lowered resistance following accident held compensable ... 1438
Injury caused by hurricane held compensable ... 1439

Housing:

Tenant selection for Federal housing projects ... 1440

Industrial disputes:

Trend of strikes ... 1443
Strikes in February 1940 ... 1444
Activities of the United States Conciliation Service, April 1940 ... 1451
Belgium—Strikes during 1939 ... 1453
Ireland—Industrial disputes, 1939 ... 1454
Netherlands—Industrial disputes, 1926–39 ... 1455

Minimum wages and maximum hours:

Coverage of wholesale and retail trade under wage and hour law ... 1457
Garment workers' wages fixed under wage and hour law ... 1458
Wool-industry wage under wage and hour law ... 1461
Twenty industrial operations seasonal under wage and hour law ... 1461
Labor in the British road-transport industry ... 1464

Wages and hours of labor:

Hourly earnings in 105 selected industries, by States, 1937 ... 1468
Wages and hours of citrus fruit packers ... 1483
Poland—Wages of Poles and Germans ... 1486
Sweden—New wage scale for seamen ... 1487

Labor turn-over:

Labor turn-over in manufacturing, March 1940 ... 1488

Trend of employment and pay rolls:

Summary of reports for April 1940 ... 1493
Detailed reports for industrial and business employment, March 1940 ... 1498

Building operations:

Summary of building construction in principal cities, April 1940 ... 1515

Retail prices:

Food prices in April 1940 ... 1520
Coal prices in March 1940 ... 1525

Wholesale prices:

Wholesale prices in April 1940 ... 1528

Labor conditions in Latin America ... 1396

Recent publications of labor interest ... 1534

EPOSITED BY THE
D STATES OF AMERICA

Page
1422
1429
1434
1436
1437
1438
1438
1439
1440
1443
1444
1451
1453
1454
1455
1457
1458
1461
1461
1464
1468
1483
1486
1487
1488
1493
1498
1515
1520
1525
1528
1396
1534

5 '40

This Issue in Brief

Employment Prospects in the Petroleum Industry.

Both short- and long-time outlooks indicate that additional workers will be required in the petroleum and natural-gas industry. The increase will follow in part the expected continued growth of demand for motor fuel and lubricants and in part other factors, such as the shortening of the workweek. These influences will tend to counterbalance a continued increase in output per man-hour owing to improved technology. Although outlook is for increasing employment opportunities, technology is modifying the composition of the labor force. The trend is now toward skilled technicians and the demand for unskilled labor is disappearing rapidly. Page 1293.

Trends of Manufacturing Employment, 1929–37.

Although the number of employees in all manufacturing industries changed only slightly from 1929 to 1937, increasing 2.9 percent, marked changes took place in individual industries and geographic areas. In analyzing the Census of Manufactures reports, the Bureau of Labor Statistics found that, excluding the building-materials industries in which the number of employees declined by about a quarter of a million, the increase of 6.2 percent in number of employees engaged in manufacturing industries closely approximated the rise in the population in the period 1929–37. Industries showing large gains in employment include steel works and rolling mills, clothing, alcoholic beverages, synthetic resins and plastics, and baking and canning. In addition to the building-materials industries, cigar, rubber tires and tubes, silk and rayon, ice, confectionery and ice cream, and furniture production accounted for fewer employees in 1937 than in 1929. Page 1308.

Share-the-Work Provisions in Union Agreements.

To prevent or limit lay-offs during slack production periods, some union agreements provide for sharing of work. Work-sharing plans are most often found in seasonal industries, such as men's and women's clothing, breweries, longshoring, and construction, in which a permanent reduction in the working force is not contemplated. Many union agreements specify the point at which work sharing ends and lay-offs begin. Most commonly, work is divided equally until regular employees receive 3 days' work per week; if further reduction is necessary, lay-offs are made according to seniority. Of the workers covered by the 7,000 agreements on file in the Bureau of Labor Statistics, it is estimated that one-fourth work under agreements containing share-the-work provisions. Page 1340.

Expenditures for Home Furnishings and Operation.

Among the moderate-income city families about one-twelfth of the total expenditure is absorbed by household expenses, other than rent, heat, and light. These expenditures are for furnishings and household equipment, cleaning supplies, laundry and domestic service, telephone, water rent, insurance on furniture, and other items connected with the running of the home. The average annual expenditure of all families for furnishings

and equipment was $60 and for household operation, $58. Expenditures for furnishings and equipment were severely restricted at the lowest income level where they amounted to only 2 percent of total expenditure but rose to about 4 percent at about the $2,000 income level after which they tended to decline, while expenditures for household operation increased from about 3 percent at the lowest income level to almost 4½ percent at the highest. The increase in the amount paid for household operation was due principally to greater use of laundry service and paid help. The total amount spent for operating the family home, including fuel, light, and refrigeration, averaged for all the families covered in the Bureau of Labor Statistics survey $528 or about $44 per month, ranging from about $20 per month for families with incomes of $500 to $600 a year to over $50 for those with incomes over $2,000. Page 1349.

Prison Labor Legislation.

For years attempts by the States to regulate the sale of prison-made goods proved futile, legislation for this purpose being held invalid on constitutional grounds, especially when it concerned a shipment of goods in interstate commerce. In order to overcome this constitutional objection, Congress, in 1929, passed the Hawes-Cooper Act, which divested prison-made goods of their interstate character. This law was materially strengthened in 1935 when Congress enacted the Ashurst-Sumners Act. At the present date, 38 States have availed themselves of the opportunities afforded by the Hawes-Cooper Act, and have passed legislation regulating the sale of prison-made goods. Page 1422.

State Full-Crew, etc., Railroad Legislation.

In order to protect the health and safety of railroad employees, as well as the traveling public, the States have enacted considerable legislation concerning the operation of railroads. Over 20 States have laws, commonly called full-crew laws, regulating the minimum number of employees required for the operation of different classes of trains. Seventeen States have legislated on the subject of qualifications of persons engaged in the operation of railroad trains, and four States provide for the regulation of train lengths. The courts have consistently upheld such legislation, in the absence of Federal action on the subject. Page 1429.

Tenant Selection for Federal Housing Projects.

Now that a number of USHA projects are being occupied or are nearing completion, housing management problems are increasing in importance. Tenant selection is the major task of the management staffs. Although local authorities may choose the methods of selection, they must conform with the requirements established under the terms of the United States Housing Act of 1937. Only families of the lowest incomes are eligible for occupancy, and they must be removed from housing conditions that are definitely detrimental to safety, health, and morals. Some of the requirements for eligibility and the methods followed in giving preference to former residents of the housing sites are discussed on page 1440.

Dictionary of Occupational Titles.

The Dictionary of Occupational Titles is the last major result of 5 years of occupational research by the United States Employment Service as an agency of the Department of Labor. That service is now a branch of the Bureau of Employment Security in the Social Security Board.

The dictionary defines 29,744 job titles applied to 17,482 different jobs in farms, mines, factories, businesses, and homes in the United States. The occupational research program which included the preparation of the dictionary was directed by William H. Stead. Page 1379.

MONTHLY LABOR REVIEW

FOR JUNE 1940

EMPLOYMENT PROSPECTS IN THE PETROLEUM AND NATURAL-GAS INDUSTRY [1]

By H. O. Rogers, *of the Bureau of Labor Statistics* [2]

Summary

BOTH short- and long-time outlooks indicate that additional workers will be required in the petroleum and natural-gas industry. The increase will follow in part the expected continued growth of demand for motor fuel and lubricants and in part other factors, such as the shortening of the standard workweek. These influences will tend to counterbalance a continued increase in output per man-hour owing to improved technology. For the next decade and a half the prospects appear fairly clear. Our proved reserves assure ample supplies for such a period and employment opportunities may be expected to increase, possibly at a somewhat slower rate than demand.

The long-time outlook is clouded by uncertainties regarding the extent of our reserves and the probable success of future efforts in exploration. This prospect, nevertheless, is one of growing difficulties in which technology finds it harder to overcome the handicaps of nature. The arrival of a stage of increasing cost and of greater human effort in production is forecast by experience in older producing fields. Finally, when output from wells undergoes major contraction and it becomes necessary to supply at least a part of the motor-fuel demand from alternative sources, such as coal and shale, society must expect to devote an increasing proportion of its labor force to the task of mining the minerals from which the motor fuel is extracted. Although the developments that probably would accompany a scarcity of oil and gas from wells can be visualized to a certain extent, just

[1] This is an elaboration of chapter XI of a larger report entitled "Technology, Employment, and Output per Man in Petroleum and Natural-Gas Production," by O. E. Kiessling, H. O. Rogers, and others, as one of the studies of the WPA National Research Project in cooperation with the Bureau of Mines.

[2] The original version of this study was written in collaboration with O. E. Kiessling, chief statistician, Division of Mines and Quarries, U. S. Bureau of the Census; Lew Suverkrop, engineer and geologist, Bakersfield, Calif.; G. R. Hopkins, assistant chief economist, Petroleum Economics Division, U. S. Bureau of Mines; and J. S. Ross, gas engineer, Federal Power Commission.

when the period of diminishing abundance will emerge only the future can disclose.

Although the outlook is for increasing employment opportunities, the influence of technology in modifying the composition of the working force is expected to continue. The demand for unskilled labor in most branches of the industry—notably exploration, refining, and pipe-line transportation—is disappearing rapidly. The trend is now toward trained technicians and skilled and semiskilled workers and away from the floating crew of roustabouts that formerly comprised the bulk of the industry's working force. In drilling there is still heavy work for the laborer, but even here increasing proportions of skilled workers are required. For the bulk of the industry's labor force youths with high-school education or its equivalent are preferred by oil companies as new employees. Most of those accepted for employment, moreover, usually are put through an additional schedule of training at company expense. There is little hope for reemployment of older, untrained workers who have lost their jobs in the industry.

The Bounty of Nature

Employment opportunities in the oil and gas industry are pivoted largely on the answer to the following question of critical importance. Will it be physically possible for our oil and gas resources to supply the growing demand of an energy-hungry society?

A decade and a half ago the question regarding the potentialities of our oil and gas reserves was answered with little hesitation. Indeed, during the middle twenties, particularly, estimates of the probable life of our reserves were volunteered in many quarters. One by one, however, these calculations were relegated to the scrap heap by some untoward development; a Seminole or East Texas pool was discovered, advances in drilling techniques enabled producers to reach the great pay sands of Kettleman Hills, or means were devised for recovering a larger percentage of the oil and gas from the underground reservoirs. If these lessons did nothing more, they at least suggested that wholesome respect for the complexity of the problem was in order, as the task of estimating petroleum and gas reserves is one of major magnitude. With better understanding of the meaning and importance of data on reserves, the rather numerous confident pronouncements of a decade ago have given place to more infrequent but more authoritative statements. These now usually bear the added weight of expressing the opinion of a representative industry committee, of an official Government agency or inquiry, or of an outstanding individual authority.

PETROLEUM RESERVES

The most recent estimate of the Nation's proved petroleum reserves was made by the American Petroleum Institute Committee on Petroleum Reserves. According to this estimate the proved reserves of oil recoverable by prevailing practice totaled 18,483 million barrels on January 1, 1940. This figure exceeds by more than 1 billion barrels the estimate of reserves made by the same committee for January 1, 1939, and it is nearly 5 billion barrels above an estimate as of September 1, 1938, prepared for the Governor of Oklahoma. Thus this 1940 estimate, used in this discussion, represents the most optimistic view taken in recent years of the size of proved reserves. It should be noted, however, that the proved reserve is quite a different matter from the volume of oil yet to be produced, since it makes no allowance for fields that may be discovered in the future.

By far the largest of the known reserves at the beginning of 1940 were those of Texas, California, Oklahoma, Louisiana, and New Mexico, which together accounted for virtually nine-tenths of the total. The remaining resources were divided among 13 other commercially productive States.

At the rate of output that prevailed in 1939, total estimated proved reserves were ample to last 14.6 years. Actually it would be impossible to produce the last fraction of the obtainable oil in existing fields in less than 20 or 30 years, because the productive capacity of many of the newly developed pools will dwindle rapidly after the flush-production period is passed.[3] Although output tends to decline rapidly in most fields after the early high-production period, it also continues for many years at a relatively low rate. Consequently, long before the period calculated as the life of present known reserves is ended, important new discoveries must be made if supples are to be adequate.

The recent upward trend in estimates of total proved reserves is apt to be misleading unless two other factors are considered as well. Although notable success in exploration explains a large part of the increase, "one of the prime causes of the recent increases in the indicated reserve is the revision brought about by the increased efficiencies of improved technique and delayed production." [4] Thus, part of the larger figure on proved reserves represents a statistical refraction owing to inadequate discounting of progress toward efficient production in preparing earlier estimates. There is a definite limit to which such bonuses of potential production can bolster future estimates. A second point is that although estimates of total proved reserves

[3] National Resources Board. A Report on National Planning and Public Works in Relation to Natural Resources and Including Land Use and Water Resources, With Findings and Recommendations. Washington, 1934.

[4] Pogue, J. E.: Economics of the Petro leum Industry. New York, Chase National Bank, 1939.

increased roughly 5 billion barrels from the end of 1936 [5] to January 1, 1940, the calculated life of such reserves at prevailing market requirements has changed very little. This has been caused by a steady growth in demand, a trend that can be illustrated by noting that average yearly output for the 5 years 1934–38 was 23 percent greater than the average for the 5 years 1926–30. Should demand continue to grow, reserves must be increased at a still faster rate in the future than in the past, if the relative size of the working stock in advance of production is to be maintained.

NATURAL-GAS RESERVES

Although careful estimates of natural-gas reserves have been made for individual fields from time to time, no comprehensive survey has been attempted for the country as a whole. The most recent official estimate, made early in 1939 by the National Resources Committee, placed the proved reserves of natural gas at "from 60 to 100 trillion cubic feet." [6] Ralph W. Richards, who supplied the data upon which the National Resources Committee based its figure, believes the upper limit of this estimate to be conservative. He states: "The discovery of important gas reservoirs * * * notably by deeper drilling in California, the Rocky Mountain area, and in the North Central States, warrants the opinion that the known natural gas reserves of the Nation are at least of the order of a hundred trillion cubic feet, or in excess of 30 years' supply in terms of the present high rate of utilization." [7] Drafts on our natural-gas reserves, however, are being made at a much more rapid rate than the marketed consumption (approximately at the annual rate of 2⅓ trillion cubic feet in 1937) indicates, since a large part of the gas produced is still being wasted outright [8] or is being discharged into the atmosphere after being stripped of its gasoline content. For this reason the actual life of present known reserves probably will be less than the theoretical life calculated on the basis of quantities of gas marketed currently. Neither information on natural-gas reserves nor on quantities of gas wasted is accurate and detailed enough to permit anything more than rough approximate conclusions.

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[5] The figure used in this calculation is an estimate of 13,360,000,000 barrels made as of December 31, 1933, by Hale B. Soyster of the U. S. Geological Survey. See Geology and Occurrence of Petroleum in the United States in Petroleum Investigation (U. S. Congress, House of Representatives, Hearings on H. Res. 441, 73d Cong., Recess, 1934), p. 2.

[6] National Resources Committee. Energy Resources and National Policy (preliminary summary). Washington, 1939. (Mimeographed.)

[7] Richards, R. W.: Natural Gas Reserves of the United States in Energy Resources and National Policy (National Resources Committee), p. II, sec. I. Richards' discussion suggests the following approximate percentage distribution of the proved natural-gas reserves: Mid-Continent and Gulf Coast, 52.2; California, 37.7; Appalachian, 7.8; Rocky Mountain States, 2.2; and North Central States, 0.1 percent.

[8] In 1935, according to F. S. Lott and G. R. Hopkins, losses and wastage of natural gas amounted to 479,826 million cubic feet. This was nearly a fifth of the total estimated production of natural gas during the year. See U. S. Department of the Interior, Bureau of Mines, Minerals Yearbook, 1937, Washington, 1937.

PROSPECTS FOR THE FUTURE

The inventory of proved reserves, reviewed in preceding paragraphs, indicates that supplies of both oil and natural gas are adequate for at least the next 10 years at the current—or even an expanding—rate of withdrawal. It appears likely, moreover, that new discoveries will continue to provide ample supplies for at least an additional decade. This opinion is based upon the view that (1) there remain large areas underlain with sedimentary rocks that have never been adequately explored; (2) there are deep productive formations to be discovered in present producing fields and in areas prospected only to shallow depths or never prospected at all; (3) knowledge of the occurrence of petroleum will continue to expand and further increases in the technical efficiency of exploration are very likely; and (4) there are no recent signs that the technologist's ability to find new oil fields is waning. Certainly, over the relatively short-time outlook of 2 decades there appear no physical barriers to additional expansion of the industry.

Despite the absence of telltale signs of exhaustion, it is clear that the constantly rising rate of discovery required by growing demand cannot be projected indefinitely into the future. Most of the discoveries to date have been made in new localities or at deeper horizons in some of the older areas, but each year the potential areas in which discoveries of major importance are possible are being reduced as a result of exploration. First, huge strips of the country have been discredited by geologists as possible sources of discovery because of the known character of the underlying rock. In addition, large blocks of the areas that the geologists have regarded as favorable for the discovery of oil have been explored to the basement rocks that mark the end of possible producing strata. There remain other areas where there are deep-lying beds that are oil-bearing at shallower depths and have yet to be penetrated by the drill. Past experience, however, seems to indicate that for certain areas the gravity of the oil becomes lighter and lighter as pay horizons are topped at deeper levels until the oil frequently exists as distillate; thus it appears that at still greater depths the hydrocarbons may exist only in the gaseous state. Just how these and other developments may affect the status of the industry in the more distant future is uncertain.

Probable Future Demand

Assuming that reserves are ample for the next 2 decades, employ ment opportunities in the oil and gas industry throughout this period will then depend primarily on demand. The present and potential applications of gas and liquid fuel are so inviting, moreover, that we can be sure that in the calculable future there will be no return to the

horse-and-buggy days of a generation ago. If our oil and gas resources cannot satisfy demand, it will be supplied by other raw materials.[9] But the precise level of future demand will be governed largely by a number of important variables.

TREND OF POPULATION

An important factor affecting future demand will be the trend of population. Since the war the slowing down of population growth has been quite marked, and it is certain to be still slower in the future. In fact, it appears likely that the population will attain its maximum early in the closing quarter of the present century and will subsequently decline.[10] A sharp contraction of immigration and a lower birth rate have more than offset the fall in death rates and are the principal factors responsible for the changing trend of population.

The prospects for the next 3 decades, however, are that the population will continue to increase, though at a gradually slackening rate. Assuming medium fertility and mortality and no net migration to or from foreign countries, Thompson and Whelpton of the Scripps Foundation for Research in Population Problems have published the following estimates of the future population of the United States:[11]

	Total population (thousands)
1940	132,630
1950	141,213
1960	147,612
1970	151,783

The consequences of this slackening of population growth on the demand for petroleum and natural-gas products probably will be less marked than might be expected because the age composition of the country will change materially. As a people we will live to a higher average age; during the next 20 years there will be a large increase in the proportion of persons 45 and over and a somewhat smaller increase in the proportion of persons in the most productive ages. At the same time there will be a sharp decline in the proportion of minors and particularly of children under 5 years of age. For this reason a larger proportion of the total population will be potential customers for mechanical energy.

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[9] For a discussion of substitute motor fuels see Heald, K. C.: Petroleum and Natural Gas, in Technology and the Mineral Industries. (WPA National Research Project in cooperation with U. S. Department of the Interior, Bureau of Mines, Report No. E–1, April 1937.)

[10] Thompson, W. S., and Whelpton, P. K.: The Population of the Nation, in Recent Social Trends in the United States. New York, McGraw-Hill Book Co., 1933, vol. I.

[11] National Resources Committee. Population Statistics. Vol. 1: National Data. Washington, 1937.

PROBABLE INCREASE IN NUMBER OF MOTOR VEHICLES

As the oil and gas industry is geared primarily to supplying the requirements of the automobile, the next most important factor affecting demand is the number of motor vehicles likely to be in use in the future. Here again the task of anticipating the changes that lie ahead is complicated by great uncertainties. Although much depends on the purchasing power of future consumers, there are also other factors that have an important effect on the course of demand. How far-reaching will be the continued spread of compulsory drivers' liability insurance? In view of the mounting motor-accident rates, is it not likely that tests for drivers will be much more stringent and the number of licensed drivers greatly reduced? For the same reason, might not mechanical governors of maximum speed become standard equipment, at least in certain areas? As a new car costing approximately $750 delivered is by no means low priced for the great bulk of car owners whose incomes are $1,500 a year or less, what would be the effect of introducing a car costing $400 delivered? These questions are easy to pose but extremely difficult to answer.

In spite of the hazards posed by these questions, most observers think that an increase in the number of both passenger cars and trucks is to be expected in the future. In 1936 there were 28 million registered motor vehicles in the United States—24,200,000 passenger cars and 3,800,000 trucks. By 1939 the number of registered motor vehicles had increased to 30,615,087, excluding 394,783 Government-owned automobiles. Although this was an all-time high, there are no indications that a saturation point has been reached. An analysis of car ownership made when the depression was at its worst indicated that there was a motor vehicle for every 2.77 people in California and one for every 3.46 people in Washington.[12] The survey showed that the ratio of car ownership was lowest in Arkansas, Mississippi, Alabama, and Georgia. Judging from this study the principal limiting factor to the expanding use of motor vehicles appears to be the ability of consumers to buy, particularly in what have been heretofore low-income areas of the country.

Recognizing the facts that there are many uncertainties and that the problem of stabilizing the demand for automobiles lies in the future, Breakey and Carmichael believe that the saturation point is one passenger car for four persons and assume that this density will be reached in 1950, when it is estimated there will be a maximum of 35,725,000 registered passenger cars. At the same time, it is concluded that the number of motortrucks in operation in 1955 will be approximately twice the number now in use. After expansion has reached a certain level, it appears probable that the trend of the

[12] Osgood, H. A.: Transportation in Technological Trends and National Policy. Washington, National Resources Committee, 1937.

number of vehicles will flatten after the middle of the present century and subsequently will parallel more closely the trend of population.

TABLE 1.—*Estimated Trend of Future Crude-Oil Requirements, 1944–69* [1]

Year	Estimated number of motor vehicles in use (thousands) (1)	Estimated motor-fuel demand per vehicle (barrels) (2)	Estimated total motor-fuel requirements (thousands of barrels) (3)	Estimated ratio of gasoline produced to crude run to stills (4)	Estimated crude oil required (thousands of barrels) (5)
1944	30,700	21.15	649,000	0.50	1,298,000
1949	34,500	22.40	773,000	.55	1,405,000
1954	38,000	22.90	870,000	.59	1,475,000
1959	41,000	23.20	951,000	.65	1,463,000
1964	43,500	23.30	1,014,000	.71	1,428,000
1969	45,000	23.30	1,049,000	.74	1,418,000

[1] The methodology employed in making these estimates and the figure on estimated motor-fuel demand for 1944 are from an unpublished study by H. A. Breakey, The Measurement and Forecasting of Domestic Motor Fuel Demand. For the purposes of this survey, Dr. Breakey has extended his original estimates, by 5-year intervals, through 1969.

PROSPECTIVE COURSE OF MOTOR-FUEL CONSUMPTION

The average consumption per motor vehicle has increased more or less steadily in recent years as the gain in average mileage driven and more powerful motors have more than counterbalanced the economies resulting from improvements in engine design. In 1937 the average vehicle used 18.8 barrels of motor fuel, an increase of 25 percent over 1928. Although the average mileage per car may continue to gain, even with increased traffic congestion, indications point to eventual stabilization in the average consumption of fuel per vehicle as results of the trend toward smaller, more economical cars and of the probable development of more efficient motor fuels.[13] It would be hasty, however, to assume that the trend will be toward the European-type small car in the near future. As one observer has noted, the present American car is based on the size of human beings, and the small European cars are products of enormous taxes on large motors, of high prices of fuels and lubricants, and of other conditions peculiar to the countries where they are used.

A current development that confuses somewhat the outlook for motor-fuel demand has been the increasing use of Diesel motors. Although the first cost of Diesel-powered cars is relatively high, operators of trucks, busses, and tractors have turned to Diesel engines because fuel costs are notably smaller than those for equivalent power with gasoline. Comparisons between Diesel fuel-oil and gasoline costs are misleading, however, as a large part of the difference is explained by the fact that gasoline carries a heavy tax and fuel oil generally does not. A broad shift from gasoline to fuel oil would

[13] Howe, H. E.: The Chemical Industries, Technological Trends and National Policy. Washington, National Resources Committee, 1937.

almost certainly be followed by a tax on fuel oil. While it is true that Diesel engines already have definite application where relatively large power units are required, they have not yet been proved practicable for general use in the lighter cars. In some quarters, moreover, it is believed that the extra cost of efficient Diesel units for small cars will more than offset the fuel savings that they achieve. Should these difficulties be overcome, it still appears that the oil industry's managers would adjust the refining process to increase the output of fuel oil and reduce the output of gasoline. The net effect upon total crude-oil demand would be the same whether the rate of increase in the average consumption of motor vehicles slowed because of the more efficient use of gasoline in regular motors or because of the increased use of Diesel engines.

Aside from increased consumption by passenger automobiles and trucks, additional expansion of the demand for motor fuel and for other petroleum products is to be expected from other sources during the next decade. Especially large increases in requirements are to be anticipated as a result of the continued growth of air transport. The increase in consumption may not be so spectacular as in the past dozen years, when the number of passengers carried in the course of regularly scheduled air-transport operations rose from 5,782 in 1926 to 1,102,707 in 1937,[14] but it is likely to exceed the growth of consumption by automobile and truck by a substantial margin. Similarly, definite limits of consumption of motor fuel and related products by tractors, and other agricultural equipment,[15] by railroads for Diesel-powered streamlined trains, and for domestic heating by an increasing number of families [16] are not yet in sight.

The demand for motor fuel is not a precise indicator of the demand for crude oil because of changes in the ratio of motor fuel obtained per barrel of crude oil refined. Since 1929 the average yield of gasoline has been more than 40 percent of the crude run to stills, but new knowledge concerning the possibilities of intensive cracking, polymerization, and other advanced refining processes promises substantially higher yields of gasoline in the future. In a few installations today, yields as high as 70 percent are already being obtained. With more intensive processing, gasoline yields as high as 80 percent or more of the crude charged probably are possible. Such yields have not yet been obtained on a commercial basis because plants are not equipped

[14] U. S. Department of Commerce. Bureau of Air Commerce. Progress of Civil Aeronautics in the United States. Washington, 1938.

[15] McKibben, E. G., and Griffin, R. A.: Changes in Farm Power and Equipment—Tractors, Trucks, and Automobiles (WPA National Research Project, Report No. A-9, Dec. 1938); McCrory, S. H., Hendrickson, R. F., and committee: Agriculture, Technological Trends and National Policy, Washington, National Resources Committee, 1937.

[16] Chawner, L. J., Residential Building. (National Resources Committee, Housing Monograph Series No. 1, 1939.) It is noteworthy that the consumption of light fuel oil for domestic heating increased from 8,905,000 barrels in 1926 to 60,178,000 in 1936. (See American Petroleum Institute, Petroleum Facts and Figures; 5th ed., New York, 1937.)

to obtain them, because there has been no real need to cut that far into the crude to satisfy motor-fuel demand, because of the demand for other petroleum products, and for other reasons. In general, however, a gradual increase in the ratio of motor fuel to crude run to stills can be expected, and such an average ratio might well reach 75 percent should prices increase enough to make crude petroleum too valuable for other purposes than gasoline and lubricating oils.

OUTLOOK FOR FUTURE REQUIREMENTS

A number of observers have appraised the long-time market tendencies already noted and have developed estimates of future crude-oil requirements. Such estimates, prepared by Parsons and St. Clair, by Breakey, and by the American Petroleum Institute, have been selected for presentation here. These figures range from a possible high of 1,520,000,000 barrels for 1954, predicted as a maximum by A. B. Parsons and Stuart St. Clair,[17] to a low of 1,088,000,000 barrels for 1955, predicted by the American Petroleum Institute.[18] The differences are explained by variations in weighting the factors that are expected to influence demand.

TABLE 2.—*Comparison of Two Estimates of Future Crude-Oil Requirements*

Year	American Petroleum Institute estimate [1]	Parsons and St. Clair estimate [2]
	Barrels	*Barrels*
1935	919,500,000	[3]
1936	[3]	[4]
1940	1,099,000,000	[4]
1945	1,104,080,000	[4]
1950	1,109,800,000	[4]
1954	[3]	[5] 1,380,000,000 [6] 1,520,000,000
1955	1,087,930,000	[3]
1960	1,071,020,000	[3]

[1] American Petroleum Institute. American Petroleum Industry. New York, 1935.
[2] Parsons, A. B. and St. Clair, S.: Outlook for World Consumption of Metals and Fuels. (In Mining and Metallurgy, vol. 18, No. 364 (April 1937).)
[3] Data not available).
[4] As an estimated trend from 1936 to 1954, Parsons and St. Clair projected a straight line determined by actual production for 1936 (1,099,687,000 barrels) and by the minimum estimate for 1954 (1,380,000,000 barrels).
[5] Minimum.
[6] Maximum.

The estimates prepared by H. A. Breakey of the United States Bureau of Mines [19] represent a middle position that guards against the inflated results obtained by simply the extrapolation of empirical trends. At the same time the persistant danger of viewing the

[17] Parsons, A. B., and St. Clair S.: Outlook for World Consumption of Metals and Fuels. (In Mining and Metallurgy, vol. 18, No. 364 (April 1937).)
[18] American Petroleum Institute Committee on Future Demand. Demand: The Probable Future Demand for Crude Oil and Motor Fuel in the United States in Intervals of Five Years From 1940-1960. (In American Petroleum Industry, New York, 1935.)
[19] From an unpublished study by H. A. Breakey, The Measurement and Forecasting of Domestic Motor Fuel Demand.

industry of the future in terms of what it is today is also recognized. As a result, Breakey's estimates are somewhat below the possible maximum suggested by Parsons and St. Clair, but are considerably above the figures of the American Petroleum Institute. Breakey concludes that the demand for crude oil will reach its peak about 1954, when demand will be approximately 1,500,000,000 barrels. Thereafter the trend is expected to be moderately downward, and the crude-oil requirements for 1969 are estimated at 1,418,000,000 barrels. For the purposes of this survey it suffices to note that the estimates of Breakey and of Parsons and St. Clair anticipate continuation of the upward trend of crude-oil demand for about the next decade and a half.

Although inadequate information precludes an estimate of the future demand for natural gas, here, too, the evidence points toward expansion of markets over at least the short-time outlook. There are, it is true, influences regarded as retarding by some observers, such as the increased use of gas in oil production with the development of repressuring techniques and the uncertain character of reserves. Nevertheless, the geographic limits of distribution are now almost Nation-wide, and the finding and development of new fields indicate continued broad use of natural gas in our more densely populated areas, particularly in the Eastern States.

Future Demand for Manpower

Granting the major postulates that supplies are ample and that demand will continue to expand, will employment opportunities in the industry likewise increase?[20] The mere fact that demand can be expected to increase offers no assurance that labor requirements will grow in like ratio, because it is reasonably certain that technology will continue the ceaseless and irregular advance. Evidence that technical progress will continue in the future is to be found in the continued growth of scientific research in the industry.

According to a recent study,[21] research activity in petroleum refining has increased more rapidly in the period since the World War than in any other major industry except automobile manufacturing. Between 1920 and 1933 the number of oil companies maintaining research laboratories increased from 7 to 53, and the number of employees engaged in this kind of research rose from 160 to 2,808. The period since 1933, moreover, has been marked by further expansion in organized research, and at the beginning of 1938 the total research personnel connected with petroleum refining probably was between 5,000 and 6,000. If figures were available on the number of persons

[20] The term "employment opportunities" is used in this discussion to mean both the total man-hours of labor and the number of workers.

[21] Perazich, George, and Field, Phillip M.: Industrial Research and Changing Technology. (WPA National Research Project, Report No. M–4, January 1940.)

engaged in research in other branches of the industry—particularly in the geological and production-engineering departments—the over-all total number of research workers employed would be much more imposing. The upward trend of expenditures for research is a favorable factor in the anticipation of no early cessation of technologic advance.

The unit labor saving achieved by added improvements in technology, however, may be counterbalanced entirely or partly by other factors in determining the volume of employment. The shortening of the working day to conform with the provisions of the Fair Labor Standards Act of 1938,[22] for example, may multiply employment opportunities faster than the prospective growth of market requirements would tend to indicate. Modification of the legal and economic arrangements under which the industry functions might also have an important effect on employment opportunities. But recognizing the hazard lurking in the observer's inability to appraise properly forces now unknown or only partly understood, what is the outlook for employment?

In anticipating future developments, it is helpful to make a clear-cut distinction between the long- and short-time viewpoint. It is also essential to distinguish the several segments of the industry, for, though all are closely related, each has special problems and characteristics.

OIL AND GAS WELLS

If attention is focused on the near future—say for the next 10 years—it appears reasonably certain that the forces that operated to increase manpower requirements in oil and gas production before 1929 will again become active and the demand for labor will expand. The set-back that employment received during the depression was not due to any epoch-making advance in technology but to the drastic curtailment of drilling and its rigid restriction to proved areas.[23] As a large part of the labor embodied in oil and gas production is utilized in the process of drilling, the sharp reduction in the number of wells drilled reacted immediately to reduce the volume of employment. With rising prices and expanding consumption, however, drilling has been resumed on a more extensive scale. Moreover, the chances favor continued expansion because growing demand requires a large number of new wells and because increasing average depths of wells will probably offset greater technical efficiency in drilling. Finally,

[22] Under this law the standard full-time workweek for all workers in industries engaged in interstate commerce or in the manufacture of goods shipped in interstate commerce, with some exceptions, was 44 hours during the first year of the law's operation (October 24, 1938, to October 24, 1939), 42 hours during the second year, and 40 hours after October 24, 1940. The law does not forbid employment in excess of the standard workweek hours, provided the employee is compensated for such excess at one and a half times the regular rate at which he is employed.

[23] Between 1929 and 1931 the number of wells drilled (including oil and gas wells and dry holes) decreased more than 50 percent, and even in 1935 the number was nearly 20 percent less than in 1929.

changing techniques of exploration indicate that more labor will be required in exploration and test drilling.

Employment in the immediate future at oil and gas wells will also be stimulated by the maximum-hour provisions of the Fair Labor Standards Act of 1938. Before October 24, 1938, drilling operations by a large number of producing companies as well as by contractors were on a working schedule of 8 hours a day and 7 days a week, a total of 56 hours. To conform with the maximum-hour provisions prescribed by the law, some of these companies have employed additional crews, resulting in an increase of about a third in the number of men employed. Many other companies, however, were not materially affected as their working schedules met the requirements of the law. But after October 24, 1940, when the full-time week will be limited to 40 hours, virtually all operators will be forced to make some readjustments of their working schedules that will involve the employment of additional workers.

The long-term outlook for employment is obscured by many uncertainties. Although it is reasonably certain that oil and natural gas will continue to be produced in appreciable quantities for several decades more, if additions to reserves fail to equal withdrawals sharp price increases would cause a shift to other sources of motor fuel and lubricants. At the same time, the higher level of prices would permit greater expenditures for labor in finding and producing oil and gas from wells as long as such efforts were attended with reasonable success. The long-range outlook is for the expenditure of a greatly increased amount of labor in the production of coal and oil shale, the most promising substitute sources of motor fuel and lubricants.

REFINING

In refining, also, both short- and long-time prospects seem to favor increased employment opportunities, but the demand will be increasingly for skilled and semiskilled workers and for technicians. It is true that large savings of labor are possible at the modern combination plants that both skim and crack. Likewise, in lubricating-oil production the trend is toward manufacture in solvent plants where both the operating steps and labor requirements are reduced. Nevertheless, expanding polymerization capacity and the trend toward the manufacture of an increasing variety and volume of chemical products from petroleum gases probably will more than counterbalance these influences. A beginning has also been made in utilizing crude oil as a raw material in the manufacture of important chemicals; the commodities produced from petroleum include amyl alcohol, acetone, ethylene glycol, and a synethetic plastic. This development already has created many jobs for skilled and technically trained workers, and undoubtedly will be the source of more

employment in the future. Furthermore, although the polymerization process at present overshadows the possibilities of hydrogenation, the general procedure of adding hydrogen molecules from one source to carbon molecules from another promises to become increasingly important as our oil resources become leaner. For these and other reasons, employment in refineries is expected to increase, and there will be further qualitative changes in the character of the labor force.

NATURAL GASOLINE

The need for manpower at natural-gasoline extraction plants also appears likely to increase for some years to come, principally because of the steadily growing demand, not only for motor fuel but also for propane, butane, and pentane—the lighter constituents of raw natural gasoline that until a few years ago were allowed to go to waste. The potential applications of liquefied petroleum gases are so inviting, particularly for use in rural areas, that increased effort unquestionably will be required to meet the demand. The wide use of polymerization at natural-gasoline plants seems immiment, moreover, and would stimulate employment. It cannot be overlooked, however, that future trends will depend on developments at oil and gas wells that are the sole source of the raw material required by the natural-gasoline plants.

TRANSPORTATION

No outstanding changes are in sight that are likely to have an important effect on employment opportunities in the transportation of petroleum and natural gas. In the East the probabilities are that the gas pipe-line network will be extended moderately during the next few years. On the West coast also the prospects favor gradual extension of the gas lines; deposits of gas have recently been proved in new fields in California, and natural gas eventually may be piped north to Oregon and Washington. There is, however, no immediate prospect of a rapid expansion of gas pipe-line construction comparable with that of the late twenties.

Extension of crude-oil lines appears to be checked at present by the fact that tanker rates are generally lower than pipe-line tariffs. The principal effect of this difference in transportation changes has been to increase the tanker movement to the East coast and to eliminate through pipe-line movements from the midcontinent. The center of production in recent years has been moving southward, thus reducing the average length of pipe-line movement incident to consumption at Gulf coast and East coast refineries, but this is balanced by the increase in the distance to the many large plants in the Great Lakes area. Gasoline pipe-line construction, on the other hand, has increased notably and probably will continue to expand for some time.

For pipe lines in general, operation is almost completely mechanized. Greater technical efficiency is possible, of course, but the opportunities for labor saving are not so good as they were a decade ago. Even though the tendency toward greater mechanical efficiency continues, particularly as old stations are replaced, factors including less employment probably will be offset by a larger volume of products moved. Thus, barring an unforeseen expansion of large-scale pipe-line construction, the prospect is that employment opportunities in the transportation segment of the industry probably will fluctuate within a narrow range, at least for some time to come.

TRENDS OF MANUFACTURING EMPLOYMENT, 1929 TO 1937

By A. F. HINRICHS and HARRY BRENNER, *of the Bureau of Labor Statistics*

THERE was a striking similarity in the number of wage earners employed in manufacturing establishments in the United States in 1929 and 1937. An average of 8,329,548 wage earners were employed in 1929 and 8,567,738 in 1937. This was an increase of 238,190 jobs, or 2.9 percent.

Because the grand totals are so similar in these 2 years, it is possible to study underlying shifts in manufacturing activity directly from the absolute figures for employment in the various industries and States. Both years were peak periods of business activity. By and large, the total employment in individual industries or in individual States shows little change between the 2 years. There are, however, outstanding exceptions: industries or areas that show considerable increases or decreases.

The present article is an analysis of the more significant of these shifts. On an industrial basis, the most striking fact is the divergent trend of industries manufacturing construction materials and the remaining manufacturing industries considered in combination. Fifteen building-material industries show a net decrease of employment from 861,953 in 1929 to 665,153 in 1927, a loss of 196,800 jobs, or 22.8 percent (table 1). If an allowance is made for decreased employment in structural-steel departments of steel works and rolling mills, not included in these figures, the total decrease amounted to about 226,000 jobs. On the other hand, in industries other than these 15, employment increased from 7,467,595 to 7,902,585, an increase of 5.8 percent. With the allowance for the influence of structural steel on these totals, the increase would be about 6.2 percent. This closely approximates the population increase from 1929 to 1937.

On a regional basis, the shifts were pronounced. Increases in total manufacturing employment were largely concentrated in Michigan and the adjoining States of Indiana and Illinois, in the States of the South Atlantic, South Central, and Southwestern regions, and on the Pacific Coast. In general, the States in the northeastern section of the country had not returned to their 1929 levels of manufacturing employment by 1937.

TABLE 1.—*Number of Wage Earners Employed in Industries Manufacturing Building Materials, 1929 and 1937*

Industry	Number of wage earners		Percent of change
	1929	1937	
Lumber	419,084	323,928	−22.7
Clay products other than pottery [1]	93,657	65,226	−30.4
Planing-mill products	90,134	66,814	−25.9
Structural and ornamental metal work	54,947	38,814	−29.4
Marble, granite, etc.	37,817	20,816	−45.0
Sheet-metal work	28,593	22,973	−19.7
Cement	33,368	26,426	−20.8
Plumbers' supplies	27,960	25,240	−9.7
Lighting equipment	23,580	21,743	−7.8
Concrete products	16,505	12,840	−22.2
Doors, shutters, etc., metal	9,557	8,408	−12.0
Lime	8,554	9,751	+14.0
Wall board, etc.[2]	7,462	11,590	+55.3
Roofing	6,027	7,418	+23.1
Window shades	4,708	3,166	−32.8
Total	861,953	665,153	−22.8

[1] Because of changes in classification, the clay-products industry was combined with the crucibles industry in 1929, and with the nonclay-refractories industry in 1937 in order to obtain comparable data.
[2] Because of changes in classification, the wall-board industry was combined with the gypsum-products industry in 1937 in order to obtain comparable data.

Changes of Census Classification

Before census totals can be compared, the figures for 1929 must be adjusted to be made comparable with those for 1937. The unadjusted census total for 1929, 8,838,743 wage earners, is 270,000 higher than the figure for 1937. There were, however, 7 industries included in the Census of Manufactures for 1929 which were not treated as manufacturing industries in 1937.[1] Furthermore, though no allowance can be made for differences in the completeness of coverage, it is probable that the 1937 census somewhat understates the number of wage earners in that year.[2]

[1] The number of wage earners employed in these industries was, therefore, deducted from the 1929 total. The 7 industries, and their average number of wage earners for 1929 are coffee and spice, roasting and grinding, 9,053; flax and hemp, dressed, 47; gas, manufactured, illuminating and heating, 43,065; motion pictures, not including projection in theaters, 10,784; peanuts, walnuts, and other nuts, processed or shelled, 7,933; railroad repair shops, electric, 29,475; and railroad repair shops, steam, 368,681. In addition, the classification of wage earners in the turpentine and rosin industry was so radically changed in 1937 that it was necessary to deduct the employment in this industry from the totals in both 1929 and 1937.

[2] The survey of activities of manufacturing establishments for 1929 was conducted in conjunction with the regular decennial census of population. A large staff of field employees was therefore available to make a door-to-door canvass of every establishment, thus insuring practically complete coverage. For the 1937 census, however, the field force was substantially smaller, and it was necessary to depend largely upon the returns of mailed questionnaires.

In most instances, this did not result in any significant loss of coverage. There are, however, certain industries—notably in the garment-manufacturing group—in which there is always a large turn-over of establishments, as well as frequent shifting of plant location. In such cases, the reliance upon the mailed questionnaire resulted in a substantial understatement of activities of the industry. To the extent that this was true of the 1937 Census of Manufactures, employment in 1937 was underestimated. While the net effect that this has upon the United States total is relatively minor, it is well to keep the point in mind when considering later discussions of changes in employment by State and industry.

In general, it is to be expected that loss of coverage for the reason just given will take place largely in the smallest establishments. Some idea of the effect of this loss may, therefore, be obtained from a consideration of the number of such establishments, and their relative importance as employers of labor. It will

Industry Trends

Comparing employment in manufacturing industries in 1929 and 1937 on an industry by industry basis, one finds a limited number of industries outside of the building-material field, in which employment declined substantially. The list of those in which employment declined by as much as 5,000 people is given in the succeeding paragraphs.

Three industries show net losses in employment attributable largely to technological shifts—cigars, tires and tubes, and silk and rayon. Cigars dropped 28,000 people. This reflects an absolute decline in the number of cigars smoked and a rapid introduction of machine processes for hand processes. There is no reason to expect that there will ever again be as many people employed in the manufacture of cigars as were employed in 1929. The trend may very well continue down. Silk and rayon employed 13,500 fewer workers in 1937 than in 1929.[3] The silk industry has been declining and will probably continue to decline. Rayon can be handled with fewer workers than equal quantities of silk. Tires and tubes dropped 20,000 people, reflecting fundamental and almost revolutionary changes in both the process of producing tires and in the life of the tires produced.

There are three industries in which substitution has accounted for very substantial losses of employment. The first of these is manufactured ice from which industry 13,500 people were dropped between 1929 and 1937. Somewhere near this number of people appear to have been added in the manufacture of electric refrigerators. There were 13,500 people dropped in confectionery and ice cream. It was supposed that a fairly substantial part of the growth in the demand for confectionery and ice cream during the decade of the 1920's was attributable to prohibition. It is equally reasonable to suppose that the decline reflects, in part, the repeal of prohibition in 1933. In the manufacture of wooden boxes, 4,500 people were dropped. In this connection, it should be noted that the growth of the paper-box industry has absorbed nearly 10,000 workers.

It is not possible to account as definitely for declines of 19,000 wage earners in the furniture and wood-turning industries, of 7,300 in the production of rubber boots and shoes, of 7,100 in men's and women's hats and millinery, and of 6,800 in silverware, plated ware, and jewelry. There has been an absolute decline in the production of rubber boots and shoes. This may very well be connected with changes in our

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be found that while almost half of all the manufacturing establishments in 1929 employed no more than 5 workers, these plants accounted for only 3.3 percent of the total number of manufacturing wage earners. In 1937, only 41.0 percent of the establishments were of this size, and employed 2.0 percent of the wage earners. It may be assumed that part of this decline can be explained by the tendency toward elimination of the smallest sized manufacturing establishments. It thus seems safe to say that, even with a fairly large understatement of establishments, the 1937 census probably was less than 1 percent off in its wage-earner total.

[3] The actual decrease is somewhat less than 13,500 workers. In 1935, the Census of Manufactures made some changes in the classification of the silk and rayon industry, as a result of which some plants formerly classified in that industry were assigned to other industries. The number of workers in such plants cannot be determined exactly.

habits of living as induced by the automobile. The change in furniture and wood turning may be related to the lack of development of new homes as well as to some shift in consumer preferences. As regards hats and millinery, there may have been some change in style and consumer preferences, for there has been a continued growth in the employment of people engaged in the production of clothing generally. It is quite possible that this is one of the industries in which the use of a questionnaire in 1937 resulted in some underreporting.

The above 10 industries or groups of industries employed about 788,000 wage earners in 1929 and about 654,000 in 1937—a decrease of about 134,000 wage-earner jobs. The loss of these jobs is attributed, in part, to technological changes, in part to changes in consumer tastes. In order to make the list complete, one should perhaps add cotton textiles, employing an average of 435,400 in 1937 and 441,100 in 1929. The decline, much smaller relatively than in the other industries listed, is large in absolute terms and accounts for more than 5,000 workers. Here then are possibly 139,000 jobs that disappeared on the basis of net changes of employment between 1929 and 1937.

The changes in classification within the census group designated as "machinery, not including transportation equipment," are too large to allow one to trace changes in employment in the separate industries. The group as a whole shows little change.[4] There was probably a significantly large decrease in the number employed on radios that might be included in the list just completed.[5]

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[4] Total wage-earner employment in the group as classified in 1929 was 1,091,269 and as classified in 1937 was 955,975. To achieve approximate comparability it is necessary to add to the figures for 1929, 14,416 wage earners making phonographs, carried in miscellaneous manufacturing in 1929; 9,784 wage earners on nonmechanical refrigerators and refrigerator cabinets, carried in the lumber group in 1929; and 1,784 wage earners on printer's and engraver's materials and in type foundries, carried in the printing and publishing group in 1929. It is also necessary to exclude from the 1929 total, 5,038 wage earners who were employed in plants classified in the gas machines and meters industry in 1929 and in the instruments and apparatus, professional and scientific industry in 1935 and, therefore, carried in the miscellaneous manufacturing group in 1937. This gives an adjusted total of 1,112,215 for 1929.

The corresponding total for 1937 is 1,100,484. This includes, in addition to the group total of 955,975 classified under machinery by the census in that year, 120,024 wage earners making foundry products and 24,485 wage earners in boiler shops who were carried in the iron and steel group by the census in 1937, but had been carried in the machinery group in 1929.

Two minor differences in classification in 1929 and 1937 are noted merely for the sake of completeness. In 1929 numbering machines were carried in hand stamps and stencils and brands. In 1937 they were carried as an unidentifiable but small part of cash registers, etc. On the other hand, taxicab meters were part of cash registers, etc., in 1929, and in 1937 were an unidentifiable part of instruments and apparatus in the miscellaneous group of industries.

[5] In 1929 the census showed 328,722 wage earners in electrical machinery and radios, and 14,416 in phonographs. In 1937 it showed 257,660 in electrical machinery and 48,343 in radios and phonographs. The totals for the three industries in combination have declined by 37,135. A decrease in radio employment may be safely inferred from changes in the value of radios and tubes produced. Though the classifications may have changed, the value of the products appears to have decreased by more than one-fifth. Whether or not there has also been a decrease in employment in electrical machinery, we cannot say. It should be noted that the manufacture of refrigerators (largely mechanical) employed 50,623 wage earners in 1937. In 1929 there were 16,883 in establishments primarily engaged in producing mechanical refrigerators, 9,784 in establishments producing nonmechanical refrigerators and refrigerator cabinets, and we estimate there were 5,731 engaged in manufacturing refrigerating and ice-making machinery. These three groups, without any breakdown, are combined in the 1937 total of 50,623. There was a large decrease in the production of commercial refrigerating and ice-making machinery between 1929 and 1937.

We are frequently told that what is needed in the United States is a new industry. Did any new industries develop between 1929 and 1937? The census gives evidence of only two industries in 1937 that employed as many as 10,000 workers which were essentially nonexistent in 1929. In the manufacture of alcoholic beverages of one sort or another, 62,000 additional people were employed. Virtually none had been legally so employed in 1929. Nearly 17,000 people were employed in the manufacture of synthetic resins and plastics. Only 3,500 workers were classified in this industry by the census in 1929.[6] Essentially, therefore, we may say that there was a growth of 76,000 jobs in the new industries.

Five industries, however, experienced an increase of employment of more than 40 percent between 1929 and 1937. While none of them may be regarded as a new industry, they are certainly indicating rates of growth sufficiently large to meet the desire that is expressed when we say that we need new industries in the United States. These industries were canning, which added 43,000 workers; stamped and pressed metalware, 21,000; rayon production, 16,000; aircraft, 9,000; and asbestos products, used largely for insulation, 5,000—a total growth in the five industries of 94,000 workers.

This is a growth within what may be described as new industries of 170,000 workers—substantially more than the decrease in all of the industries that were showing a fundamental tendency to shrink.

This does not complete the list of industries with growing employment. There were at least 11 that experienced a rate of increase of employment between 1929 and 1937 two to four times as great as the increase in population. These industries and their respective increases were blast furnaces, steel works and rolling mills, 83,000; baking, 38,000; men's clothing, 26,000; shirts and collars, 10,000; women's clothing, 55,000; converted paper products, 26,000; chemicals, 17,000; glass, 11,500; rubber goods other than tires and boots and shoes, 8,000; leather products other than boots and shoes, 7,000, cigarettes, 5,000—a growth of 286,000 in the number of wage earners employed in 11 industries.

An adjustment should be made in the steel figure. The net growth of 83,000 conceals decreases in some branches of steel production. There are no figures on the subject, but a loss of employment for 30,000 wage earners may be estimated because of decreased production of structural shapes, concrete reinforcing bars, and nails. The net growth for the balance of the industry was then not 83,000 but 113,000 wage earners. This would raise the total for these 11 industries (excluding steel for construction) from 286,000 to 316,000.

[6] Because of a change in classification of the industry in 1931, the figure of 3,500 workers in 1929 is not exactly comparable to the figure of 17,000 in 1937. If the data could be made comparable, the increase in employment in the industry would be somewhat smaller than 13,500.

Finally, in terms of the industries which show growth of employment at a rate substantially higher than the rate of population growth, one should note knit goods with 22,500 and shipbuilding with 7,000.

All in all, therefore, in industries employing more than 10,000 workers in 1937 and growing substantially more rapidly than population, there was an increase of about 516,000 jobs in manufacturing—76,000 in 2 new industries; 94,000 in 5 industries with increased employment of over 40 percent; 316,000 in 11 industries, basically old, but still showing a net growth of employment 2 to 4 times as great as population; and about 30,000 in knit goods and shipbuilding. Against this "new industry" gain of 516,000 is to be offset the loss of 139,000 jobs in industries with substantial decreases of employment opportunity.

The net gain is 377,000 jobs in relatively large industries showing pronounced trends of employment.

The striking changes in manufacturing employment are thus confined to a relatively small list of industries. Decreases occurred in the total for 15 industries manufacturing building materials: 862,000 in 1929 to 665,000 in 1937. In the 11 industries with large decreases noted there were 1,229,000 in 1929 and 1,090,000 in 1937.[7] The 20 industries for which increases were noted employed 1,862,000 in 1929 and 2,347,000 in 1937.[8]

The remaining manufacturing industries showed smaller absolute changes than those that have been discussed. Some, of course, showed small decreases. Others increased. In general, outside of the building-materials industries and of the industries just listed as changing considerably, there were small gains. In the aggregate, they employed 4,378,000 in 1929 and 4,466,000 in 1937, a net gain of about 88,000 wage earners.

This means that in all manufacturing industries outside of the building-materials field, there was a net increase in employment of about 465,000 wage earners,[9] a gain of 6.2 percent. This large segment of employment—all of manufacturing outside of building materials—expanded almost exactly in proportion to population.

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[7] Not including radios, nonmechanical refrigerators, or ice-making machinery discussed above (p. 1311, footnote 5).

[8] These figures include structural steel in blast furnaces, steel works, and rolling mills. They do not include mechanical refrigerators discussed above (p. 1311, footnote 5), wall board and gypsum which in combination increased from 7,462 to 11,590 (see table 1), nor agricultural implements and tractors for which a 1929 to 1937 comparison is not possible.

[9] This figure represents the difference of 435,000 that is the net sum of changes in industries (including all of the iron and steel industry) other than building materials, plus an allowance of 30,000 decline in structural steel made in plants classified in steel works and rolling mills that should be attributed to a decline in building materials.

State Trends of Employment

When the same adjustments were made in each State as were made in the National figures, it was found that manufacturing employment was greater in 1937 than in 1929 in 23 States and the District of Columbia, while declines were found in 25 States (table 2). The increases ranged from 1.1 percent in New Jersey to 27.4 percent in Michigan. Pennsylvania showed a drop of less than 0.1 percent, while the greatest decline (19.9) percent was experienced in Arizona.

In general, the States in the northeastern section of the country had not returned to their 1929 levels of manufacturing employment by 1937. This condition was true in four of the six New England States, in two of the three Middle Atlantic States, and in Ohio and Delaware. On the other hand, consistent gains were registered in the South. With the single exception of Mississippi every Southern State east of the Mississippi River showed an increase. Most of these gains were quite large; in only two cases were they less than 10 percent.

Two other regions show important increases. Michigan, as has been noted, had an increase of 27.4 percent. Small increases occurred in Illinois and Indiana. This gain reflects increased employment in the automobile and steel industries. The Pacific Coast likewise experienced increased employment, notably in California and Oregon. Finally, as part of the growth of southern industry, one should note the increase of employment in the Southwestern States of New Mexico, Oklahoma, and Texas.

In general, with the exceptions just noted, employment declined in the States west of the Mississippi River. The Great Plains and Mountain States have a relatively small number of manufacturing wage earners and the declines involve relatively few workers. Increases occurred, however, only in Nevada and North Dakota, the only two States in the Union with less than 3,000 manufacturing wage earners in 1937. The decreases in the States bordering the Mississippi are significant.

TABLE 2.—*Number of Wage Earners Employed in Manufacturing Industries, by State and Geographic Division, 1929 and 1937*

State and geographic division	Number of wage earners in all manufacturing industries [1]		Percent of change	Number of wage earners, excluding those in industries manufacturing building materials [1]		Percent of change
	1929	1937		1929	1937	
New England	1,081,122	1,022,350	−5.4	1,044,511	996,821	−4.6
Maine	68,820	75,464	+9.7	62,933	70,091	+11.4
New Hampshire	64,722	56,517	−12.7	61,017	54,348	−10.9
Vermont	26,503	23,682	−10.6	18,026	17,886	−.8
Massachusetts	547,509	496,036	−9.4	536,088	488,875	−8.8
Rhode Island	124,853	108,031	−13.5	123,482	107,175	−13.2
Connecticut	248,715	262,620	+5.6	242,965	258,446	+6.4

See footnotes at end of table.

TABLE 2.—*Number of Wage Earners Employed in Manufacturing Industries, by State and Geographic Division, 1929 and 1937*—Continued

State and geographic division	Number of wage earners in all manufacturing industries [1]		Percent of change	Number of wage earners, excluding those in industries manufacturing building materials [1]		Percent of change
	1929	1937		1929	1937	
Middle Atlantic	2,448,741	2,386,743	−2.5	2,323,432	2,300,470	−1.0
New York	1,062,012	995,658	−6.2	[2] 1,029,910	[2] 968,822	[2] −5.1
New Jersey	432,078	436,745	+1.1	[3] 420,854	[3] 427,971	[3] +1.7
Pennsylvania	954,651	954,340	[4]	[5] 893,936	[5] 910,110	[5] +1.8
East North Central	2,435,350	2,571,131	+5.6	2,267,457	2,450,677	+8.1
Ohio	712,616	694,205	−2.6	[6] 665,416	[6] 661,398	[6] −.6
Indiana	297,333	313,342	+5.4	273,586	295,336	+7.9
Illinois	653,087	668,841	+2.4	[7] 623,821	[7] 648,423	[7] +3.9
Michigan	518,520	660,676	+27.4	[8] 490,498	[8] 639,283	[8] +30.3
Wisconsin	253,794	234,067	−7.8	[9] 225,454	[9] 214,276	[9] −5.0
West North Central	418,316	406,176	−2.9	372,549	370,056	−.7
Minnesota	90,468	89,925	−.6	78,221	80,280	+2.6
Iowa	70,647	67,878	−3.9	61,661	59,797	−3.0
Missouri	187,264	186,831	−.2	170,442	173,669	+1.9
North Dakota	2,631	2,854	+8.5	[10] 2,617	[10] 2,839	[10] +8.5
South Dakota	5,680	4,970	−12.5	4,455	4,079	−8.4
Nebraska	23,176	19,590	−15.5	[11] 21,766	[11] 18,381	[11] −15.6
Kansas	38,450	34,128	−11.2	33,822	31,361	−7.3
South Atlantic	820,755	990,613	+20.7	700,039	889,829	+27.1
Delaware	21,476	21,052	−2.0	[12] 21,080	[12] 20,813	[12] −1.3
Maryland	122,327	145,932	+19.3	115,111	140,365	+21.9
District of Columbia	8,202	8,714	+6.2	[13] 7,501	[13] 8,221	[13] +9.6
Virginia	106,193	132,643	+24.9	90,936	115,567	+27.1
West Virginia	75,153	83,464	+11.1	[14] 62,536	[14] 74,129	[14] +18.5
North Carolina	204,681	[15] 258,771	+26.4	[16] 181,322	[15 16] 238,847	[16] +31.7
South Carolina	105,287	129,701	+23.2	[17] 87,222	[17] 116,479	[17] +33.5
Georgia	130,286	158,686	+21.8	106,809	141,864	+32.8
Florida	47,150	51,650	+9.5	[6] 28,105	[6] 34,490	[6] +22.7
East South Central	340,353	370,131	+8.7			+24.6
Kentucky	64,708	68,998	+6.6	51,499	57,115	+10.9
Tennessee	118,234	135,073	+14.2	97,866	119,456	+22.1
Alabama	109,116	120,093	+10.1	75,690	96,409	+27.4
Mississippi	48,295	45,967	−4.8	[18] 15,212	[18] 26,865	[18] +76.6
West South Central	266,593	272,389	+2.2			+14.6
Arkansas	39,860	37,280	−6.5	15,878	17,739	+11.7
Louisiana	81,222	[15] 76,057	−6.4	47,537	[15] 51,513	+8.4
Oklahoma	29,067	29,551	+1.7	23,281	25,054	+7.6
Texas	116,444	[15] 129,501	+11.2	[19] 90,245	[15 19] 108,444	[19] +20.2
Mountain	84,299	78,774	−6.6			−.9
Montana	11,357	11,268	−.8	7,306	7,966	+9.0
Idaho	14,590	12,797	−12.3	3,215	4,562	+41.9
Wyoming	4,035	3,795	−5.9	[20] 3,152	[20] 3,021	[20] −4.2
Colorado	28,003	25,932	−7.4	24,529	23,038	−5.9
Arizona	8,977	7,193	−19.9	6,361	5,244	−17.6
New Mexico	2,917	3,683	+26.3	1,090	1,436	+31.7
Utah	13,463	13,094	−2.7	12,280	12,066	−1.7
Nevada	957	1,012	+5.7	681	774	+13.7
Pacific	434,019	469,431	+8.2			+17.9
Washington	108,732	101,260	−6.9	42,878	46,310	+8.0
Oregon	62,230	65,982	+6.0	24,855	27,321	+9.9
California	263,057	302,189	+14.9	[2] 221,614	[2] 265,156	[2] +19.6
United States	8,329,548	8,567,738	+2.9	7,467,595	7,902,585	+5.8

[1] Adjusted for comparability: see p. 1309.
[2] Does not exclude clay industry.
[3] Does not exclude cement, clay, lime, and lumber industries.
[4] Less than 1/10 of 1 percent
[5] Does not exclude doors, etc., metal, and wall-board industries.
[6] Does not exclude cement industry.
[7] Does not exclude cement, clay and lime industries.
[8] Does not exclude doors, etc., metal and roofing industries.
[9] Does not exclude cement, doors, etc., metal, roofing, and wall-board industries.
[10] Does not exclude clay, marble, planing-mill, and sheet-metal-work industries.
[11] Does not exclude cement, lighting equipment, wall-board, and window-shade industries.
[12] Does not exclude plumbers' supplies industry.
[13] Does not exclude clay, doors, etc., metal, wall-board, and window-shade industries.
[14] Does not exclude roofing and wall-board industries.
[15] To avoid disclosure, 13 wage earners in 4 plants in the turpentine and rosin industry were not deducted in the adjustment for comparability; 2 of the plants are in Louisiana, 1 in North Carolina, and 1 in Texas.
[16] Does not exclude lime and window-shade industries.
[17] Does not exclude lime, structural and ornamental metal-work, and window-shade industries.
[18] Does not exclude sheet-metal-work, structural and ornamental metal-work, and wall-board industries.
[19] Does not exclude lighting equipment and plumbers' supplies industries.
[20] Does not exclude cement and wall-board industries.

The gross changes in employment by States do not tell the full story. More exactly, a decrease does not always have the same significance. In some instances—as for example, Arkansas, Louisiana, and Mississippi—the decrease reflects a decline in some basic industry that is more than adequate to offset general tendencies to growth. In these three States the lumber industry in 1937 was still suffering from the depression of the construction industry, and losses of employment in this industry hide gains in a number of others. In other instances—as for example, in New England—the decrease of employment was concentrated in industries which, on a national basis, held their own. Thus, cotton textiles grew in the South, while declining in New England. Finally, in a few cases the declines reflect among other things the importance of an industry with a generally declining trend of employment—as for example, cigarmaking in Pennsylvania. Thus, it is necessary to relate the two trends—shift in industry and in location—into an integrated picture.

As has been noted, one of the major results of the depression which began in 1929 was the large drop in building construction. It is in this field that the continued lack of recovery has been most notable in effect its on manufacturing employment. In 1929, the building-materials industries employed 10.3 percent of all manufacturing wage earners in the country. However, their relative importance in the different States varied considerably. Thus, in Idaho they accounted for 78.0 percent of manufacturing employment, while Rhode Island had only 1.1 percent of its workers engaged in making building materials. These are not isolated extreme examples: in 7 States besides Idaho, these industries employed over 40 percent of the workers; Rhode Island was 1 of 6 States which had less than 5 percent of their workers in this field.

By and large the factors making for the decline in employment in the building-materials industries apply equally to every section of the country. On the other hand, as has just been shown, the extent to which workers depended for jobs on the activities of these industries varied considerably from State to State. For this reason, the State changes in all manufacturing employment from 1929 to 1937 are not truly comparable. The percentage changes are distorted unequally in accordance with the varying relative importance of a group of industries having in each State the same tendency to decline.

This consideration is made clear when one examines the last three columns of table 2, covering employment in manufacturing industries, exclusive of building materials. The number of States showing increases in employment from 1929 to 1937 rises from 23 to 32. In addition, Ohio and Vermont, which experienced fairly large decreases considering all industries, now show declines of less than 1 percent. In fact, all but 1 of the 16 States still exhibiting a drop in employ-

ment have percentage declines smaller than those shown before the adjustment. Similarly, in every case but one (which remains at the same figure) the percentage increases are greater.[10]

On a regional basis, the following main observations are noted: (1) Washington, where the lumber industry had declined severely, joins the other States of the Pacific Coast in showing an increase; (2) every State in the South Central regions shows an increase, whereas without the adjustment Mississippi, Arkansas, and Louisiana had shown decreases; (3) in the West North Central and Mountain regions the percent of decrease becomes less than 1 percent.

In the following presentation of industry changes for each State, it was found necessary in many cases to give the figures as approximations. This occurs for two reasons: (1) in many cases, the census combines industry data for several States in order to avoid an exact or approximate disclosure of the activities of an individual company, and (2) industry classifications have changed so that 1929 and 1937 figures are not always exactly comparable. Part of the difficulty caused by the second reason has been obviated by combining data for two or more industries when the change in classification involved a simple transfer of plants making some individual product from one industry to another.

NORTHEASTERN REGION

It has been stated that the northeastern section of the country had not, in 1937, returned to its 1929 level of manufacturing employment. In fact, the net decrease during this period in the number of manufacturing wage earners employed in the Middle Atlantic and New England States amounted to 120,720 people. If the losses in the contiguous States of Ohio and Delaware are added to this figure, the net decrease is then no less than 139,555 jobs. This may be compared with a combined loss of only 55,981 jobs in all the remaining 17 States which suffered a drop in employment.

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[10] In the last three columns of table 2, the figures for all the States are not exactly comparable. As is evident from the table, the employment data were obtained by deducting from the total employment in the State the number of wage earners in the 15 building-materials industries listed in table 1. However, many of these industry figures were not shown for all States in the published reports of the Census of Manufactures in order to avoid disclosure of data for individual firms. Through the cooperation of the Bureau of the Census, these missing data were obtained by the Bureau of Labor Statistics to be included only in totals for the 15 industries which were then deducted from the State employment total. The possibility of exact or approximate disclosure arose again, however, for those cases in which either one or two industries were all that were not shown by the census. In such cases, it was necessary to omit some of the 15 industries in making the deductions. This procedure was followed for 18 States and the District of Columbia. In no case did the necessity for this procedure affect the significant results for any State. Altogether, the number of wage earners in building-materials industries not deducted amounted to 30,166 in 1929 and 20,525 in 1937. In 10 States and the District of Columbia, the number involved was less than 400 for each year.

Where more than one State in a geographic division has been treated in this manner, the employment totals and the percent of change for the geographic division are not based on the sum of the State figures shown, but represent the actual totals and percent of change when all building-materials industries are deducted from each State. When only one State in a geographic division has been handled this way, no regional totals are shown, but the percent of change, which is given, is based on the complete adjustment in each State in the region. Similarly the totals and percent of change for the United States are based on the complete adjustment in every State.

The major declines in this region occurred in New York, which was providing 66,354 fewer jobs in 1937 than in 1929, and in Massachusetts, where the corresponding figure was 51,473 jobs. In addition, Rhode Island, New Hampshire, and Ohio were also included among the 7 States which fell off by at least 5,000 positions.

On the other hand, there was a fairly large degree of growth in Connecticut, which in 1937 provided 13,907 more jobs than it had in 1929. Maine and New Jersey, the other 2 States which showed an increase in this region, together added only 11,321 workers.

In considering the specific industries which accounted for employment changes in this area, it is found that the major variations occur in the group of industries manufacturing textiles and their products. The outstanding change is the marked decrease in the manufacture of cotton goods. This industry is unimportant in Vermont and the Census of Manufactures gives no separate data for that State. All the other States in the region, with the single exception of Maine, had fewer workers in the industry in 1937 than in 1929. In four States—New Hampshire, Massachusetts, Rhode Island, and Pennsylvania—the decrease amounted to at least 40 percent. All in all, cotton-goods plants lost about 53,000 wage earners in this area. Although this decrease is of considerable size, the industry as a whole showed very little change, since the South Atlantic States, plus Alabama, experienced a growth in cotton-manufacturing employment just about equal to the decline in the Northeast.

This region also suffered large declines in the production of silk and rayon goods. In this case, the most significant changes occurred in the Middle Atlantic States which lost in the neighborhood of 35,000 workers in this industry. In addition, Connecticut lost about 4,500 workers. A gain of about 6,000 in Massachusetts and Rhode Island hardly made up for the declines. These latter increases, by the way, were not in long-established silk mills but represented primarily the conversion of cotton mills to the manufacture of rayon. They are thus partial off-sets to the large decreases in cotton goods noted in the last paragraph.

Although the Southern States experienced a gain of employment in silk and rayon manufacturing, this growth did not, as in the case of cotton goods, prevent a net decline in the industry as a whole. It is estimated that the increase in the South Atlantic States amounted to about 18,000 workers.

Besides these changes in cotton, silk, and rayon goods, there were significant movements in the manufacture of finished garments. The Middle Atlantic States, Massachusetts, and Connecticut are important centers of the garment industries. An increase of employment in establishments manufacturing women's clothing occurred in all 5 of the States and resulted in a net gain of about 42,000 jobs.

While there was a combined growth in these States in the manufacture of men's clothing [11] also, amounting to about 15,000 positions, there was one notable example of a decrease in employment—a drop of over 8,000 jobs in New York. This undoubtedly reflects an internal shift within the region, with business moving from the New York City area to the outlying States of Connecticut, New Jersey, and Pennsylvania.

Against the background of these major shifts may be presented the picture for each State in this region.

Considering first Massachusetts, the major industrial State in New England, it will be recalled that there occurred here a net decrease of 51,473 jobs. Supplementing the story of the decline of the textile industry there is found here a drop of over 7,000 employees in the dyeing and finishing, woolen and felt goods, and wool carpet and rug industries. It should be noted, however, that the increase of 2,512 jobs in the plants manufacturing worsted goods is almost exactly equivalent to the loss in woolen and felt goods. In addition, it is especially important to note the decrease of about 13,500 jobs in the manufacture of boots and shoes, including rubber footwear. There then remain several industries displaying smaller losses, of which a drop of 3,814 positions in foundries and machine shops is the largest numerically. On the positive side is found a growth in bakeries and in shipbuilding, which is general in the region.

The situation in Rhode Island is practically presented in its entirety if, to the story of the textile industries, an account is made of the employment of 3,058 fewer jewelry workers in 1937 than in 1929. The jewelry industry of Rhode Island is primarily concerned with the manufacture of cheap jewelry.

New Hampshire and Maine both show small decreases in paper and pulp, small increases in the manufacture of miscellaneous wooden articles, and, finally, a fairly evenly divided, combined increase of 6,807 men in boot and shoe factories. However, New Hampshire showed a net decrease of over 8,000 jobs, with the largest declines being 6,607 workers in cotton plants and 3,463 in plants making worsted goods. These losses represented mainly the closing down in 1935 of the Amoskeag mills in Manchester. Maine, on the other hand, showed a slight upward trend in both of these industries to help put it on the positive side of the ledger.

In Vermont, where the textile industries are not significant, the change in the State can be almost entirely accounted for by decreases in two of the building-materials industries—marble and lumber—and

[11] There were such extensive changes in classification from 1929 to 1937 in the group of industries manufacturing men's clothing that it was necessary to combine several industries in order to obtain comparable data on a State basis. The State figures presented for men's clothing here and in other sections of this report therefore include plants manufacturing shirts, collars, work clothing, and men's furnishing goods, in addition to those making suits, overcoats, etc.

a decrease of over 900 jobs in the machine-tool industry. Offsetting these losses was a gain of over 2,000 workers in plants manufacturing woolen goods.

Connecticut, on the other hand, represents a situation of general change. There was a rather small growth in a large number of industries overbalancing a similar group of losses in other industries.

In New York State, the picture regarding the textile industries must be supplemented by the fact that millinery establishments reported over 6,000 fewer workers in 1937 than in 1929. However, the manufacture of women's hats in New York City furnishes an outstanding example of the situation referred to previously on comparability of coverage in the 1929 and 1937 Census of Manufactures. This is an industry consisting mainly of a large number of small establishments which spring into existence overnight and have a short average life span. It is thus probable that the reported drop of 6,000 workers in this State is a considerable overstatement of what actually took place in the industry.

Outside the textile field, the main examples of lack of recovery to 1929 levels of employment in New York State are furnished by the establishments classified in the foundry and machine-shop, electrical-machinery, and radio industries. Together, this group of machinery industries lost over 20,000 workers in the State. The industries making building materials, as a group, dropped 15,695 workers, and plants making automobiles and automobile bodies and parts lost 10,547 employees. Cigar factories and knit-goods plants each lost about 5,500 workers. Book and job printing fell off considerably, and shipbuilding, which was growing in New England, dropped 2,200 men. Boot and shoe manufacturing decreased by about 3,300 workers. There were a great many other industries with small decreases.

In addition to the gain in the women's clothing industry, the main increases in New York State were shown by bakeries and steel works and rolling mills.

The most serious decline in employment in New Jersey is that which occurred in rayon and silk manufactures. Employment decreased by about 11,400, more than half the total of 1929. This brought with it a corresponding drop in textile dyeing and finishing, amounting to about 9,500 men. There appears to have been a decrease of more than 2,500 within the electrical, radio, and phonograph industries. There was also a decrease of 2,500 in foundries and machine shops. However, in general, New Jersey seemed to experience a growth in a large number of miscellaneous industries which more than balanced the industries which declined. The growth in all branches of clothing manufacture, and particularly in women's clothing, was especially striking.

Pennsylvania in 1937 was back to just about its 1929 level of manufacturing employment. Steel works and rolling mills were using over 20,000 more workers in 1937 than in 1929. Bakeries rose by over 4,000 workers, following the general trend shown for the industry, while boots and shoes contributed the other major increase. Offsetting these gains were the displacement of over 7,500 cigar workers due mainly to the substitution of machine-made for hand-made cigars; a drop of about the same size in foundries and machine shops; and a falling off of nearly 4,000 employees in establishments engaged in dyeing and finishing textiles. Knit goods, one of the largest industries in the State, barely held its own, actually showing a slight decrease of less than 1 percent, whereas for the country as a whole employment in the industry grew by 10.8 percent. Silk and rayon declined by about 20,300 and cotton textiles by 4,000.

SOUTHERN AND SOUTHWESTERN REGIONS

The pronounced rise of industrial activity in the South was the major factor contributing to the increase in manufacturing employment from 1929 to 1937. Considering the 16 States and the District of Columbia, which comprise the South Atlantic, East South Central, and West South Central regions, there is found a net growth of 205,432 jobs. More than 80 percent of this increase occurred in the South Atlantic region.

The only States in this area which did not gain in employment were Delaware, Arkansas, Mississippi, and Louisiana. The relatively small decreases which occurred in the latter three States were due primarily to the drop in lumber camps and sawmills. The loss in Delaware amounted to only 424 jobs. On the other hand, the four coastal States of Virginia, North Carolina, South Carolina, and Georgia each experienced a growth of over 20,000 in employment. Outside this area, only California and Michigan showed gains of this size, and the rise of 54,090 jobs in North Carolina was the second largest in the country.

In giving an over-all picture of industrial change in the South, one might tell almost the entire story by considering merely the cotton-goods and the lumber- and timber-products industries. Together they accounted for about 502,000 wage earners in 1929, or 35.2 percent of all manufacturing employment in this area. By 1937 this had dropped to about 495,000 wage earners, representing approximately 30.0 percent of southern manufacturing employment. This represented a decrease of 60,000 lumber workers and an increase of almost 50,000 employees in plants manufacturing cotton woven goods and cotton yarn and thread. Virginia was the only Southern State which showed an increase of employment in lumber mills, amounting to 900 workers. In six States the decrease in lumber mills was as large as 4,000 men,

with Mississippi suffering the greatest loss—13,702 jobs. In cotton, on the other hand, Alabama, Georgia, and the Carolinas each provided at least 9,000 more positions in 1937 than in 1929.

Supplementing the growth in cotton goods in this area, the other textile industries which recorded the most progress were in the fields of knit-goods manufacturing, where over 25,000 workers were added, and the manufacture of men's clothing which also added in the neighborhood of 25,000 employees. In the latter case, this amounted to an increase of over 50 percent. North and South Carolina were the only States which experienced any significant rise in the dyeing and finishing of textiles. Together they added over 11,000 jobs in this field.

Significant general increases appeared in the canning of fruits, with over 12,000 new jobs, and in bakeries, which added over 8,000 persons to their pay rolls, while steel works and rolling mills—in employing over 9,000 more people, mainly in Maryland and Alabama—followed the general trend shown by this industry.

The furniture industry, which, on a National basis, declined considerably in employment, and especially in the East North Central States, added almost 3,500 workers in the South. However, this increase was not general, and represented mainly a growth in North and South Carolina and Virginia where 4,416 employees were added. Five Southern States showed decreases in furniture manufacturing, the largest decline (over 1,000 workers) occurring in Maryland.

Special interest is attached to the manufacture of paper and pulp in the South in view of the recent developments in the possibilities of southern pine. The available data indicate an increase of over 4,500 employees in these two industries in this region, with Louisiana accounting for about one-third of this amount.[12]

Unfortunately, it is impossible because of the possibility of disclosure to obtain satisfactory State figures on the manufacture of rayon in the South. It is known, however, that Tennessee added 2,000 workers in this industry; it seems very probable that large increases were actually made in other Southern States also.

These general changes account for the major part of the explanation of individual State changes. By and large, there were few significant decreases outside the lumber industry. The remaining outstanding declines, however, consisted of a loss of 3,327 workers making motor-vehicle bodies and parts in Tennessee; 2,076 cigarmakers in Florida; 2,499 employees in petroleum refineries in Louisiana; 1,031 workers in boot and shoe factories in Kentucky; 1,019 men in the cast-iron pipe industry in Alabama; and 783 shipyard workers in Delaware.

[12] Where growth is as rapid as has been the case in southern Kraft paper, the questionnaire method previously referred to may underestimate the increase between 1929 and 1937.

Offsetting the decline in shipyards in Delaware was an increase of 4,554 jobs in this industry in Maryland, Texas, and Virginia. The addition of about 4,000 cigarette workers in Kentucky and North Carolina was far larger than the drop in cigarmaking in Florida. The remaining most notable examples of increase were the addition of over 10,000 workers in silk and rayon in North Carolina;[13] over 3,000 foundry and machine-shop workers in Texas; about 2,000 engaged in the refining of cane sugar in Louisiana; and, in Tennessee, a general growth in the boot and shoe, rayon and allied products, men's clothing, and heating- and cooking-apparatus industries.

GREAT LAKES REGION

The five States in the Great Lakes area, comprising the East North Central geographic division as defined by the Census of Manufactures, rank equally with the Middle Atlantic States in terms of industrial importance. Approximately 30 percent of the manufacturing wage earners of the country are employed in this region. In the entire region there was a net growth in manufacturing employment of 135,781 jobs from 1929 to 1937. Michigan alone gained 142,156 jobs and this gain of 27.4 percent was the largest in the country, both on a numerical and a percentage basis. While Indiana and Illinois also experienced a growth of about 16,000 jobs each, Ohio fell in employment by 18,411 and Wisconsin by 19,727 jobs.

The proximity to coal and iron resources has made the Great Lakes region a center of the manufacturing industries engaged in fabricating steel. It is in these heavy industries that the most important changes in employment occurred in this area. The greatest increase took place in the plants manufacturing motor vehicles and motor-vehicle bodies and parts, which experienced a net growth amounting to over 60,000 workers. This was the result of an increase of 78,183 jobs in body and parts plants and a decrease of 17,353 jobs in assembly plants. Almost all of the gain in the body and parts section of the industry occurred in Michigan, where the increase amounted to 70,593 positions. In addition, Michigan was the only one of these States showing a gain in assembly plants, with 12,516 new workers.

The only other State showing any significant change in body and parts manufacturing was Indiana, where 7,628 new positions were available. On the other hand, Ohio, Indiana, and Wisconsin experienced a loss of almost 30,000 workers in assembly plants to offset the gain in Michigan.

The growth of automobile manufacturing in Michigan is particularly interesting in view of the previously accepted belief that the industry

[13] The available evidence indicates that South Carolina also added a large number of employees in silk and rayon manufacturing. Information for 1929 and 1931 has been withheld by the census in order to avoid disclosure of data for individual establishments. However, in 1933, 591 wage earners in silk and rayon plants were reported in South Carolina. For 1937, the number is more than 7,100.

has been decentralizing. From 1929 to 1937, Michigan, the traditional center of the industry, increased its proportion of wage earners from 47.9 percent to 62.1 percent of all wage earners in the industry (table 3). The increased concentration in Michigan, however, occurred almost entirely between 1929 and 1933. In that period total employment in the United States in motor-vehicle and body and parts plants fell from 447,488 to 243,614. There was a decrease in Michigan from 214,368 to 151,200, but it was relatively less than the decrease in plants outside of Michigan, from 233,080 to 92,414. Thus, whereas Michigan had less than half the automobile employment in 1929, it had more than three-fifths by 1933. Between 1933 and 1937 employment expanded both inside and outside of Michigan. The 1937 proportions of the employment in Michigan were about the same as in 1933.

Between 1929 and 1933 the growth of concentration occurred in the Detroit industrial area (Wayne and Oakland Counties). Outside of this area in Michigan, employment declined from 55,931 to 25,083 or in about the same proportion as for the remainder of the country, while in the Detroit area the decline was from 158,437 to 126,117. Comparable figures for 1937 were not available.

In the city of Detroit, however, there was no increase in automobile employment. In 1929, 111,981 wage earners were employed in the automobile industry; in 1937, 111,715.

TABLE 3.—*Employment in the Motor-Vehicle Industry, in the United States and in Michigan, 1929 to 1937*

Year	Motor vehicles			Motor-vehicle bodies and parts			Total, motor-vehicle industry		
	Number of wage earners		Percent in Michigan	Number of wage earners		Percent in Michigan	Number of wage earners		Percent in Michigan
	United States	Michigan		United States	Michigan		United States	Michigan	
1929	226,116	108,796	48.1	221,332	105,572	47.7	447,448	214,368	47.9
1931	134,866	64,077	47.5	150,649	88,952	59.0	285,515	153,029	53.6
1933	97,869	59,725	61.0	145,745	91,475	62.8	243,614	151,200	62.1
1935	147,044	83,988	57.1	240,757	154,857	64.3	387,801	238,845	61.6
1937	194,527	121,312	62.4	284,814	176,165	61.9	479,341	297,477	62.1

The increased needs of the automobile industry probably accounted to a considerable degree for the employment of 46,555 additional workers in steel works and rolling mills of the Great Lakes States. This was due to an increase of over 6,000 in every State of the region but Wisconsin, which dropped 1,393 men. Similarly, plants making machine tools and machine-tool accessories gained almost 8,000 workers, with Michigan again showing the largest increase.

The picture in foundries and machine shops was the same as that in automobile-assembly plants. The net gain of 3,855 workers in the region represented a growth of 18,000 in Michigan and large decreases

in the other four States. Three other industries in the iron and steel group—hardware, wirework, and stamped ware—enjoyed substantial general increases in employment, with Wisconsin again being an exception in each case. It should be noted, however, that in the case of hardware, there was a loss of 1,020 jobs in Ohio and a slight decrease in Indiana.

In the food-products group of industries, there was a general growth of about 9,500 in both bakeries and fruit and vegetable canneries; on the other hand, Illinois meat-packing plants lost 3,500 men. Boot and shoe manufacturing gained in employment to the extent of 4,400 jobs, with Wisconsin again failing to follow the upward trend of the other States in the area.

The largest decrease in employment in this region took place in the manufacture of furniture. Only Ohio failed to contribute to the general drop amounting to 17,462 men.

In addition to these general trends, attention may be called to some of the other outstanding developments in each State. The growing use of mechanical refrigerators brought employment opportunities to over 6,000 workers in Michigan. On the other hand, this State lost over 6,200 jobs in plants making agricultural implements and engines and turbines.[14] Other outstanding declines took place in planing mills, cigar factories, and aircraft plants.

In Illinois, three of the building-materials industries—clay products, planing mills, and plumbers' supplies—experienced a net loss of 6,000 jobs. In addition, 13,845 workers in electrical-machinery and radio plants lost their positions; and the men's clothing industry dropped about 4,000 workers. Opposed to these declines is found an increase of over 5,000 jobs in the manufacture of agricultural implements and engines and turbines. Gains of over 2,000 workers in the manufacture of nonferrous-metal alloys and women's clothing are the largest of the remaining increases in Illinois.

Nonferrous-metal alloys experienced a large growth in Ohio also, amounting to 5,165 jobs. Glass employed 3,300 additional people. But the clay-products and pottery industries decreased by 8,700 jobs and rubber tires and tubes by 16,588—practically all in the Akron industrial area.

In connection with the rubber-tire industry, it may be noted that, while the industry declined in the country as a whole by about 20,000 wage earners, the drop in Ohio was relatively more pronounced than the National decrease. In percentage terms, the whole industry declined 24.0 percent from 1929 to 1937; Ohio declined 30.0 percent. It will be seen from table 4 that the tire industry suffered its loss on a National basis between 1929 and 1931 and that there has been a

[14] These industries must be treated in combination because of the transfer of tractors from engines and turbines in 1929 to agricultural implements by 1937.

gradual recovery from 1931 to 1937. The same situation holds true for the State of Ohio and for the Akron industrial area (Summit County) until 1935. However, between 1935 and 1937, when the industry as a whole was still engaged in reemploying workers, this trend was reversed in Ohio and the Akron area. This is probably an indication of the increasing relative importance of other States in the manufacture of tires and tubes.

TABLE 4.—*Employment in Rubber-Tire and Inner-Tube Industry in the United States, Ohio, and Akron Industrial Area, 1929 to 1937*

Year	Number of wage earners		
	United States	Ohio	Akron industrial area
1929	83,263	55,307	51,135
1931	49,159	32,180	29,241
1933	52,976	35,621	32,514
1935	57,128	39,063	36,701
1937	63,290	38,719	35,525

In Indiana, the reduction of 3,400 men in wire drawing was second only to that in motor-vehicle manufacturing. In addition, there was a considerable decrease in such building-materials industries as clay, lumber, marble, and planing mills. Lumber also showed a sharp decline of 6,400 employees in Wisconsin. The loss of 2,200 knit-goods workers in Wisconsin is also worthy of special note.

MOUNTAIN AND WEST NORTH CENTRAL REGIONS

The 15 States comprising the Mountain and the West North Central geographic divisions experienced a decrease of 17,665 wage-earner jobs in manufacturing industries from 1929 to 1937. This decline of 3.5 percent was the result of a drop in employment in all these States except North Dakota, New Mexico, and Nevada. The fact that only 5 of the 15 States had as many as 25,000 employees in manufacturing industries indicates that, by and large, this region is not an important center of industrial activity. In fact, 6 of these States each provided factory employment to less than 10,000 wage earners.

In terms of absolute numbers of workers, no State in this region showed a very large change. The greatest decrease was in Kansas, where 4,322 workers lost their jobs, and the increase of 766 jobs in New Mexico represented the largest gain.

Missouri, the most important industrial State in this area, showed practically no change in total manufacturing employment from 1929 to 1937. The most significant shifts which occurred here were the addition of more than 1,500 wage earners in the manufacture of men's clothing, a decline of about 4,000 employees in building-materials

industries, and the addition of over 2,000 workers in the electrical-machinery industry. Boot and shoe manufacturing, the largest industry in the State, added about 1,200 men. Other outstanding decreases occurred in the manufacture of heating and cooking apparatus, and motor vehicles, including motor-vehicle bodies and parts.

It is difficult to present a detailed picture for many of the remaining States. For the most part, the industry changes are small, seldom amounting to more than a few hundred employees. The general upward trends in bakeries and canning, and downward trends in lumber and other building-materials industries are still apparent.

PACIFIC REGION

On the Pacific Coast, the regional increase of 35,412 workers is explained almost entirely by the growth of California as a manufacturing State. In fact, Washington suffered a decrease of 7,472 in employment, largely because the most important industry in the State, lumber, declined by almost 10,000 jobs. The most important gain in Washington occurred in paper and pulp mills. A similar gain in paper and pulp manufacturing, plus the fact that it was one of the very few States which showed an increase in the lumber industry, accounted to a large degree for the addition of 3,752 jobs in Oregon.

In California itself, the most notable development was the tremendous expansion in plants manufacturing aircraft and aircraft parts. Whereas only 1,277 workers were so engaged in 1929, by 1937 the number had risen to 11,520, thus making California the leading State in this industry. This development was accompanied by a general growth in almost all fields of manufacturing activity. Among the textile industries, the largest gains were recorded in the manufacture of men's and women's clothing, and knit goods. Bakeries, canneries, and slaughtering houses between them added almost 12,000 workers. Automobile plants, including those making bodies and parts, gained in employment by 2,664 people. Other large increases were recorded in structural and ornamental metal work, heating and cooking apparatus, glass, chemicals, and petroleum. The largest decrease took place in lumber, which dropped 3,845 workers. Of the building-materials industries, clay products and planing mills together dropped about 2,900 people. There was a loss of 2,324 workers making agricultural implements and engines and turbines.

New Industries

A separate discussion has been reserved for two industries which may be considered as "new." In 1937, 63,351 workers were em-

ployed in making alcoholic beverages.[15] There was virtually no legal employment of this kind in 1929; the total shown by the census for this year was 1,670. Almost every State in the country was benefited by the resumption of activity in these industries after the repeal of the prohibition act. Table 5 gives the 1937 employment figures by State for each of the four industries.

TABLE 5.—*Employment in Industries Making Alcoholic Beverages, 1937*

State	Liquors, distilled	Liquors, malt	Rectified or blended	Vinous
Arizona	(1)	(1)		
Arkansas			(1)	12
California	332	1,611	376	1,713
Colorado	(1)	298	(1)	
Connecticut	(1)	421	138	
Delaware		(1)		
District of Columbia		(1)		
Florida		385	(1)	
Georgia		(1)		(1)
Idaho		32		
Illinois	1,038	2,993	1,443	(1)
Indiana	803	1,675	1,074	
Iowa		147		(1)
Kentucky	2,070	993	238	
Louisiana	(1)	771	55	(1)
Maine			(1)	
Maryland	672	1,377	871	(1)
Massachusetts	107	1,025	321	
Michigan	(1)	2,526	72	137
Minnesota	(1)	1,725	(1)	(1)
Missouri	11	2,823	42	(1)
Montana	(1)	154		
Nebraska		313		
Nevada		(1)		
New Hampshire		(1)		
New Jersey	79	1,884	484	66
New York	169	5,608	236	647
North Carolina		(1)		(1)
Ohio	251	3,398	509	122
Oklahoma		(1)		
Oregon	(1)	103		14
Pennsylvania	456	4,992	1,102	
Rhode Island		340	(1)	(1)
South Dakota		(1)		
Tennessee		169		
Texas		903		13
Utah		(1)		
Vermont	(1)			
Virginia	52	104		
Washington		729	30	151
West Virginia		62		
Wisconsin		4,038	30	
Wyoming		(1)		
United States	6,215	47,037	7,094	3,005

[1] Withheld to avoid disclosure.

New York, with 6,640 employees, and Pennsylvania with 6,550 employees, were the leading States in such manufacturing in 1937. Over 20,000 workers were employed in beverage plants in the five States of the Great Lakes region, Ohio and Wisconsin each having

[15] These employees were grouped in 4 industries by the Census of Manufactures, as follows: Liquors, malt, with 47,037 wage earners; liquors, rectified or blended, with 7,094 wage earners; liquors, distilled, with 6,215 wage earners; and liquors, vinous, with 3,005 wage earners.

over 4,000. The other States in which as many as 2,000 workers were hired in the industry were California, Kentucky, Maryland, Missouri, and New Jersey.

In 1937, 16,673 workers were engaged in the manufacture of synthetic resin. The earliest year for which comparable figures are available is 1931, when the industry employed 5,654 people. The industry has developed mainly in the northeast section of the country. Pennsylvania plants provided the largest number of jobs; the census indicated 2,524 wage earners there in 1937. New York and New Jersey, Connecticut and Massachusetts, and Delaware were the other leading States in the Northeast. The only State in another section of the country which witnessed an expansion in this industry was Illinois, which was reported to have 2,164 wage earners in 1937.

Changes in Employment, by State

Table 6 presents, in summary form, the most important changes in employment in manufacturing industries for each State. No data appear for North Dakota and Nevada, since these two States have so few manufacturing employees in any industry.

It will be noticed that some of the employment figures are given as approximations. This procedure was necessary for some industries which the census has divided into subindustries, as well as in those cases in which it was necessary to combine several industries in order to obtain comparable data for 1929 and 1937. In either case, it was often found that, for a particular State, employment figures were given for some, and not all, of the industries which had to be combined.

In addition, it should be kept in mind that not every important change which actually took place is recorded in the table. To avoid disclosure of data reported by individual establishments, the industry statistics for particular States are, in many cases, omitted in the report of the Census of Manufactures.[16] In some instances, the industries so omitted are more important, in terms of wage-earner employment, than many of the other industries in the State for which separate figures are given. Attention has been called to this fact on a few occasions in the text, as in the case of silk and rayon manufacturing in South Carolina.[17]

[16] Biennial Census of Manufactures, 1937, part I (p. 1329).

[17] See footnote 13, p. 1323.

TABLE 6.—*Changes in Employment in Manufacturing Industries from 1929 to 1937, by State*

MAINE

Industries with increase in employment				Industries with decrease in employment			
Industry	Number of wage earners			Industry	Number of wage earners		
	1929	1937	Increase		1929	1937	Decrease
Boots and shoes	9,967	13,605	3,638	Pulp	3,835	3,356	479
Shipbuilding	1,134	2,088	954	Planing-mill products	596	273	323
Canning, fruit, etc	1,140	1,999	859	Paper	8,296	8,023	273
Cotton goods	[1] 9,862	[2]	[2]	Canning, fish, etc	2,393	2,162	231
Wood, turned and shaped	2,212	2,661	449	Printing and publishing, newspapers, etc	1,011	838	173
Lumber	3,436	3,774	338				
Worsted goods	3,956	4,148	192				

NEW HAMPSHIRE

Boots and shoes	14,544	17,713	3,169	Cotton goods	13,769	7,162	6,607
Woolen and felt goods	[1] 4,482	5,153	[3] 671	Worsted goods	4,046	683	3,463
Wood, turned and shaped	425	1,011	586	Pulp	2,432	1,349	1,083
				Lumber	1,982	1,271	711
				Paper	2,580	1,974	606
				Textile machinery	1,108	756	352

VERMONT

Woolen and felt goods	1,499	3,579	2,080	Marble, granite, etc	5,287	3,219	2,068
Wood, turned and shaped	906	1,196	290	Machine tools	2,610	1,700	910
				Lumber	2,371	1,952	419
				Furniture	1,147	944	203

MASSACHUSETTS

Silk and rayon	7,390	[3] 12,345	[3] 4,955	Cotton goods	70,788	42,464	28,324
Men's clothing	[3] 8,939	[3] 13,193	[4] 4,254	Boots and shoes	55,093	46,720	8,373
Women's clothing	6,874	[3] 10,713	[3] 3,839	Boots and shoes, rubber	11,163	6,034	5,129
Bread	10,413	13,047	2,634	Foundry and machine-shop products	21,243	17,429	3,814
Worsted goods	29,962	32,474	2,512	Motor-vehicle bodies and parts	3,393	552	2,841
Paper goods, n. e. c	4,053	5,559	1,506	Carpets and rugs, wool	4,297	1,725	2,572
Machine tool accessories	3,239	4,239	1,000	Dyeing and finishing	14,450	12,150	2,300
Shipbuilding	3,635	4,611	976	Woolen and felt goods	16,574	14,287	2,287
				Cutlery	3,467	2,372	2,226
				Rubber tires and tubes and rubber goods, n. e. c	9,764	7,846	1,918
				Paper	12,138	10,506	1,632
				Jewelry	5,422	4,018	1,404
				Confectionery	7,471	6,340	1,131
				Furniture	8,598	7,798	800
				Planing-mill products	2,011	1,317	694

RHODE ISLAND

Rubber goods, n. e. c	1,822	3,290	1,468	Cotton goods	21,833	[2]	[2]
Lace goods	1,005	1,782	777	Jewelry	10,273	7,215	3,058
Silk and rayon	7,589	[2]	[2]	Textile machinery	3,711	2,089	1,622
Beverages, alcoholic	0	[3] 340	[3] 340	Cotton narrow fabrics	4,781	3,783	998
Dyeing and finishing	9,242	9,440	198	Worsted goods	21,216	20,262	954

See footnotes at end of table.

TABLE 6.—*Changes in Employment in Manufacturing Industries from 1929 to 1937, by State*—Continued

CONNECTICUT

Industries with increase in employment				Industries with decrease in employment			
Industry	Number of wage earners			Industry	Number of wage earners		
	1929	1937	Increase		1929	1937	Decrease
Women's clothing	3,484	[3] 7,146	[3] 3,662	Silk and rayon	10,501	[3] 5,408	[1] 5,093
Men's clothing	3,836	[3] 6,306	[3] 2,470	Hardware	17,951	14,143	3,808
Cutlery	2,534	4,604	2,070	Cotton goods	10,789	9,062	1,727
Bread	2,592	3,907	1,315	Silverware and plated ware	[3] 5,275	3,669	[3] 1,606
Wirework, n. e. c.	864	1,867	1,003	Cotton narrow fabrics	2,452	1,113	1,339
Hats, fur-felt	6,078	6,936	858	Machine tools	6,402	5,642	760
Dyeing and finishing	2,309	[3] 2,998	[3] 689	Rubber goods, n. e. c.	3,200	2,534	666
Wire, drawn from purchased rods	901	1,561	660	Planing-mill products	1,031	546	485
Machine tool accessories	1,676	2,238	562				
Beverages, alcoholic	0	[3] 559	[3] 559				
Stamped ware	1,882	2,422	540				
Motor-vehicle bodies and parts	866	1,227	361				
Needles, pins, etc.	2,388	2,730	342				

NEW YORK

Women's clothing	102,096	115,528	13,432	Electrical machinery, radios and phonographs	44,279	32,982	11,297
Beverages, alcoholic	[1] 734	6,660	[3] 5,916	Foundry and machine-shop products	47,638	38,620	9,018
Bread	33,704	37,269	3,565	Men's clothing	[3] 70,665	62,670	[3] 7,995
Steel works and rolling mills	17,952	20,638	2,686	Millinery	16,655	[3] 10,608	[1] 6,047
Artificial flowers	1,664	3,712	2,048	Motor vehicles	10,603	4,621	5,982
Paper goods, n. e. c.	3,962	5,845	1,883	Knit goods	31,558	26,087	5,471
Canning, fruit, etc.	7,810	9,534	1,724	Cigars and cigarettes	8,602	3,160	5,442
Corsets and allied garments	4,702	6,333	1,631	Printing and publishing, book, music, and job	32,388	27,266	5,122
Glass	3,148	4,747	1,599	Furniture	25,220	20,380	4,840
Gloves, leather	5,582	7,046	1,464	Silk and rayon	10,261	[3] 5,609	[1] 4,652
Buttons	2,468	3,734	1,266	Motor-vehicle bodies and parts	19,617	15,052	4,565
				Planing-mill products	7,071	3,340	3,731
				Boots and shoes	36,980	33,673	3,307
				Nonferrous-metal alloys	13,901	10,664	3,237
				Structural and ornamental metal work	6,854	4,005	2,849
				Bookbinding	10,126	7,528	2,598
				Confectionery	9,602	7,108	2,494
				Marble, granite, etc.	4,410	1,943	2,467
				Shipbuilding	10,811	8,598	2,213
				Electroplating	3,189	1,283	1,906
				Beverages, nonalcoholic	3,582	1,788	1,794
				Pianos	3,747	2,071	1,676
				Sugar refining, cane	4,352	2,930	1,422
				Sheet-metal work	3,142	1,847	1,295
				Hardware	3,834	2,589	1,245
				Cotton goods	5,811	4,606	1,205
				Ice, manufactured	2,554	1,392	1,162
				Jewelry	5,204	4,146	1,058

See footnotes at end of table.

TABLE 6.—*Changes in Employment in Manufacturing Industries from 1929 to 1937, by State*—Continued

NEW JERSEY

Industries with increase in employment				Industries with decrease in employment			
Industry	Number of wage earners			Industry	Number of wage earners		
	1929	1937	Increase		1929	1937	Decrease
Women's clothing	8,972	23,572	14,600	Silk and rayon	21,419	9,991	11,428
Men's clothing	15,074	[3] 19,884	[3] 4,810	Dyeing and finishing	23,097	[3] 13,604	[1] 9,493
Bread	7,223	11,096	3,873	Foundry and machine-shop products	22,343	19,769	2,574
Shipbuilding	7,551	10,708	3,157	Electrical machinery, radio, and phonographs	[3] 42,193	39,782	[3] 2,411
Chemicals, n. e. c	13,504	16,198	2,694	Cotton goods	4,758	2,961	1,797
Boxes, paper	2,945	5,366	2,421	Structural and ornamental metal work	2,763	1,047	1,716
Rubber goods, n. e. c	7,740	9,999	2,259	Motor-vehicle bodies and parts	3,086	1,977	1,109
Asbestos products	1,920	3,797	1,877				
Beverages, alcoholic	[1] 737	2,513	[3] 1,776				
Cast-iron pipe	2,271	3,535	1,264				
Worsted goods	7,293	8,533	1,240				
Furs, dressed and dyed	1,317	2,508	1,191				
Wire drawn from purchased rods	1,988	2,959	971				
Paint	4,510	5,384	874				
Steel works and rolling mills	8,056	8,915	859				
Toys	1,471	2,239	768				
Nonferrous-metal alloys	4,149	4,701	552				

PENNSYLVANIA

Steel works and rolling mills	145,684	165,952	20,268	Silk and rayon	61,544	41,203	20,341
Men's clothing	[1] 42,041	[3] 52,168	[3] 10,127	Foundry and machine-shop products	55,364	47,604	7,760
Women's clothing	14,688	24,686	9,998	Cigars and cigarettes	25,221	[1] 17,571	[3] 7,650
Beverages, alcoholic	302	6,550	6,248	Cotton goods	7,773	3,775	3,998
Bread	23,960	27,978	4,018	Dyeing and finishing	8,858	4,984	3,874
Boots and shoes	10,429	12,942	2,513	Motor-vehicle bodies and parts	11,678	9,009	2,669
Canning, fruit, etc	3,725	5,801	2,076	Cement	7,470	5,585	1,885
Petroleum refining	7,895	9,390	1,495	Carpets and rugs, wool	6,904	5,326	1,578
Chemicals, n. e. c	3,280	4,691	1,411	Confectionery	7,469	6,071	1,398
Asbestos products	1,136	2,436	1,300	Knit goods	62,141	61,374	767
Boxes, paper	5,276	6,279	1,003				

OHIO

Stamped ware	6,959	14,978	8,019	Rubber tires and inner tubes	55,307	38,719	16,588
Steel works and rolling mills	89,123	95,530	6,407	Motor vehicles	28,727	12,811	15,916
Nonferrous-metal alloys	4,769	9,934	5,165	Clay	17,060	11,286	5,774
Beverages, alcoholic	[1] 17	4,280	[3] 4,263	Structural and ornamental metal work	7,464	3,674	3,790
Bread	13,567	17,661	4,094	Foundry and machine-shop products	61,453	58,058	3,395
Glass	9,491	12,793	3,302				
Machine tools	11,857	14,527	2,670				
Boots and shoes	12,258	14,810	2,552				
Men's clothing	[3] 17,786	[3] 18,763	[4] 977				
Canning, fruit, etc	2,480	3,390	910				

INDIANA

Steel works and rolling mills	29,169	43,400	14,231	Motor vehicles	20,573	11,279	9,294
Motor-vehicle bodies and parts	13,653	21,281	7,628	Wire, drawn from purchased rods	4,881	1,480	3,401
Canning, fruit, etc	4,877	8,460	3,583	Furniture	18,700	15,406	3,294
Beverages, alcoholic	[1] 720	[3] 3,552	[3] 2,832	Foundry and machine-shop products	26,222	[1] 23,099	[3] 3,123
Stamped ware	1,867	3,479	1,612	Clay	4,985	2,381	2,604
Men's clothing	9,894	[3] 11,146	[3] 1,252	Cigars and cigarettes	3,238	1,346	1,892
Petroleum refining	[1] 5,913	6,768	[3] 855	Marble, granite, etc	3,342	1,676	1,666
Bread	5,055	5,784	729	Planing-mill products	2,598	1,346	1,252
Women's clothing	1,524	[3] 2,182	[3] 658	Heating and cooking apparatus	3,002	2,074	928
				Printing and publishing, book, music, and job	3,928	3,052	876
				Cars, electric and steam railroad	5,438	4,633	805
				Lumber	3,254	2,503	751
				Meat packing	4,976	4,458	518

See footnotes at end of table.

TABLE 6.—*Changes in Employment in Manufacturing Industries from 1929 to 1937, by State*—Continued

ILLINOIS

Industries with increase in employment				Industries with decrease in employment			
Industry	Number of wage earners			Industry	Number of wage earners		
	1929	1937	Increase		1929	1937	Decrease
Steel works and rolling mills	30,416	41,426	11,010	Electrical machinery, radios, and phonographs	57,646	43,801	13,845
Agricultural implements, engines, tractors, etc	36,167	41,193	5,026	Furniture	23,767	17,696	6,071
Beverages, alcoholic	[1] 720	[3] 5,474	[3] 4,754	Men's clothing	[3] 25,256	[3] 20,428	[4] 4,828
Bread	16,929	20,013	3,084	Meat packing	29,618	26,120	3,498
Canning, fruit, etc	4,475	7,270	2,795	Clay	6,506	4,204	2,302
Lithographing	2,501	4,702	2,201	Planing-mill products	6,179	3,986	2,193
Women's clothing	13,802	[3] 15,971	[3] 2,169	Foundry and machine-shop products	45,064	42,944	2,120
Nonferrous-metal alloys	5,406	7,447	2,041	Printing and publishing:			
Boots and shoes	14,725	16,662	1,937	Book, music, and job	26,425	24,588	1,837
Wirework, n. e. c	1,989	3,629	1,640	Newspapers, etc	11,660	10,546	1,114
Heating and cooking apparatus	17,065	18,704	1,639	Lighting equipment	4,592	3,721	871
Tin cans and other tinware	6,085	7,551	1,466	Signs and advertising novelties	3,321	2,494	827
Rubber goods, n. e. c	1,496	2,788	1,292	Ice, manufactured	1,879	1,219	660
Machine tools	3,653	4,839	1,186				
Boxes, paper	5,382	6,358	976				
Chemicals, n. e. c	3,626	4,541	915				
Stamped ware	4,760	5,652	892				
Leather	3,661	4,480	819				
Screw-machine products	2,707	3,482	775				
Motor-vehicle bodies and parts	5,273	5,804	531				
Glass	4,658	5,177	519				

MICHIGAN

Motor-vehicle bodies and parts	105,572	176,165	70,593	Agricultural implements, engines, tractors, etc	[3] 8,951	2,680	[3] 6,271
Foundry and machine-shop products	42,492	60,504	18,012	Furniture	20,941	14,851	6,090
Steel work and rolling mills	4,724	21,024	16,300	Cigars and cigarettes	4,073	2,334	1,739
Motor vehicles	108,796	121,312	12,516	Planing-mill products	3,784	2,121	1,663
Refrigerators	3,942	10,165	6,223	Electrical machinery, radios and phonographs	[3] 8,196	6,782	[3] 1,414
Hardware	10,077	15,948	5,871	Aircraft	1,510	284	1,226
Wirework, n. e. c	6,162	11,015	4,853	Printing and publishing, book, music, and job	6,074	4,904	1,170
Machine-tool accessories	9,010	11,773	2,763	Lighting equipment	2,010	1,120	890
Beverages, alcoholic	0	[3] 2,735	[3] 2,735	Nonferrous-metal alloys	10,219	9,561	658
Printing and publishing, newspapers, etc	3,950	5,545	1,595	Screw-machine products	3,418	2,826	592
Chemicals, n. e. c	5,414	6,891	1,477				
Canning, fruit, etc	2,617	3,956	1,339				
Bread	9,349	10,483	1,134				
Sugar, beet	619	1,330	711				
Women's clothing	1,420	[3] 2,124	[3] 704				
Machine tools	1,554	2,246	692				
Heating and cooking apparatus	6,131	6,661	530				
Leather	2,070	2,569	499				

WISCONSIN

Agricultural implements, engines, tractors, etc	14,932	22,699	7,767	Lumber	14,489	8,102	6,387
Beverages, alcoholic	0	4,068	4,068	Foundry and machine-shop products	24,207	18,688	5,519
Paper	9,741	11,157	1,416	Motor vehicles	10,241	5,675	4,566
Electric machinery, radios, and phonographs	7,845	9,127	1,282	Knit goods	11,118	[3] 8,837	[1] 2,281
Forgings	628	1,582	954	Furniture	8,714	6,574	2,140
Canning, fruit, etc	5,290	6,171	881	Steel works and rolling mills	5,248	3,855	1,393
Heating and cooking apparatus	3,016	3,671	655	Planing-mill products	5,283	4,519	764
Leather	3,791	[3] 4,307	[3] 516	Boxes, wooden	2,027	1,314	713
Bread	4,758	5,138	380	Structural and ornamental metal work	1,570	942	628
				Pulp	3,446	3,069	377
				Aluminum	3,921	3,578	343

See footnotes at end of table.

TABLE 6.—*Changes in Employment in Manufacturing Industries from 1929 to 1937, by State*—Continued

MINNESOTA

Industries with increase in employment				Industries with decrease in employment			
Industry	Number of wage earners			Industry	Number of wage earners		
	1929	1937	Increase		1929	1937	Decrease
Beverages, alcoholic	0	[3] 1,725	[3] 1,725	Lumber	4,412	2,437	1,975
Refrigerators	1,160	2,778	1,618	Signs and advertising novelties	1,915	386	1,529
Meat packing	6,936	8,537	1,601	Flour	3,535	2,373	1,162
Canning, fruit, etc	1,767	2,470	703	Foundry and machine-shop products	5,820	4,768	1,052
Heating and cooking apparatus	[1] 2,148	2,785	[3] 637	Furniture	2,052	1,241	811
Printing and publishing, newspapers, etc	2,994	3,566	572	Marble, granite, etc	1,781	1,214	567
Motor-vehicle bodies and parts	447	819	372	Boots and shoes	1,047	642	405
Bread	3,891	4,079	188				

IOWA

Meat packing	8,663	9,521	858	Furniture	1,552	1,006	546
Bread	3,516	4,257	741	Printing and publishing, book, music, and job	[3] 1,469	1,023	[3] 446
Canning, fruit, etc	1,820	2,174	354	Motor-vehicle bodies and parts	371	188	183
Planing-mill products	3,525	3,831	306	Cigars and cigarettes	307	54	253

MISSOURI

Beverages, alcoholic	0	[3] 2,876	[3] 2,876	Heating and cooking apparatus	[1] 3,460	1,863	[1] 1,597
Electrical machinery, radios, and phonographs	7,225	9,560	2,335	Clay	4,856	3,822	1,034
Men's clothing	[1] 12,872	[3] 14,371	[3] 1,499	Boxes, wooden	1,337	318	1,019
Boots and shoes	24,903	26,110	1,207	Millinery	2,042	1,118	924
Steel works and rolling mills	3,406	4,467	1,061	Motor vehicles	6,086	5,246	849
Paper goods, n. e. c	147	1,144	997	Foundry and machine-shop products	8,607	7,773	834
Cars, electric and steam railroad	2,881	3,487	606	Motor-vehicle bodies and parts	4,220	3,404	816
Stamped ware	781	1,203	422	Confectionery	2,847	2,073	774
Women's clothing	6,903	[3] 7,201	[3] 298	Meat packing	5,614	5,066	548
				Cement	1,764	1,223	541
				Planing-mill products	1,755	1,270	485
				Printing and publishing, book, music, and job	[3] 5,354	4,895	[3] 459
				Ice, manufactured	1,150	739	411
				Marble, granite, etc	819	441	378
				Printing and publishing, newspapers, etc	4,284	3,972	312

SOUTH DAKOTA

				Lumber	852	500	352
				Bread	731	628	103

NEBRASKA

Beverages, alcoholic	0	313	313	Meat packing	6,037	5,012	1,025
Bread	1,912	2,154	242	Printing and publishing:			
				Newspapers, etc	1,564	1,142	422
				Book, music, and job	887	699	188
				Confectionery	235	105	130

See footnotes at end of table.

TABLE 6.—*Changes in Employment in Manufacturing Industries from 1929 to 1937, by State*—Continued

KANSAS

Industries with increase in employment				Industries with decrease in employment			
Industry	Number of wage earners			Industry	Number of wage earners		
	1929	1937	Increase		1929	1937	Decrease
Petroleum refining	3,113	3,335	222	Meat packing	9,068	8,049	1,019
Bread	1,791	1,900	109	Clay	1,101	513	588
				Cement	1,176	754	422
				Aircraft	913	510	403
				Planing-mill products	565	360	205

DELAWARE

Canning, fruit, etc	1,414	1,758	344	Shipbuilding	1,239	456	783
				Paper	585	360	225

MARYLAND

Steel works and rolling mills	[1] 13,956	18,242	[3] 4,286	Furniture	2,409	1,392	1,017
Canning, fruit, etc	6,059	9,138	3,079	Foundry and machine-shop products	4,735	[3] 3,893	[1] 842
Shipbuilding	2,312	4,666	2,354	Confectionery	1,187	659	528
Beverages, alcoholic	[1] 720	[3] 2,920	[3] 2,200				
Men's clothing	17,856	[3] 19,233	[3] 1,377				
Bread	3,452	4,552	1,100				
Paper	1,240	1,914	674				
Boots and shoes	2,239	2,637	398				

DISTRICT OF COLUMBIA

Printing and publishing, newspapers, etc	1,338	1,762	424	Planing-mill products	201	96	105
Bread	1,346	1,729	383				

VIRGINIA

Cotton goods	7,672	12,001	4,329	Boxes, wooden	1,138	585	553
Men's clothing	[1] 4,895	[3] 8,900	[3] 4,005				
Furniture	6,285	8,504	2,219				
Canning, fruit, etc	1,712	3,578	1,866				
Knit goods	3,125	[3] 4,893	[3] 1,768				
Silk and rayon	2,249	[3] 3,318	[3] 1,069				
Lumber	8,720	9,629	909				
Shipbuilding	6,760	7,464	704				
Dyeing and finishing	[1] 701	[3] 1,378	[3] 677				
Planing-mill products	1,847	2,429	582				
Bread	1,709	2,202	493				
Paper	1,935	2,423	488				
Pulp	1,553	1,823	270				

WEST VIRGINIA

Chemicals, n. e. c	1,968	4,866	2,898	Lumber	7,955	5,538	2,417
Steel works and rolling mills	12,936	14,674	1,738	Planing-mill products	686	417	269
Glass	11,123	12,763	1,640				
Stamped ware	1,346	2,372	1,026				
Bread	1,449	1,944	495				
Pottery	5,683	6,083	400				
Woolen and felt goods	779	1,032	253				

See footnotes at end of table.

TABLE 6.—*Changes in Employment in Manufacturing Industries from 1929 to 1937, by State*—Continued

NORTH CAROLINA

Industries with increase in employment				Industries with decrease in employment			
Industry	Number of wage earners			Industry	Number of wage earners		
	1929	1937	Increase		1929	1937	Decrease
Knit goods	22,930	[3] 37,883	[3] 14,953	Lumber	17,364	14,560	2,804
Cotton goods	91,844	104,158	12,314	Ice, manufactured	1,197	359	838
Silk and rayon	2,922	[3] 13,264	[3] 10,342				
Dyeing and finishing	2,363	8,465	6,102				
Cigars and cigarettes	13,778	[3] 16,421	[3] 2,643				
Furniture	15,609	16,789	1,180				
Bread	1,249	2,118	869				
Men's clothing	[1] 3,234	[3] 3,698	[3] 464				
Paper	425	665	240				

SOUTH CAROLINA

Cotton goods	71,731	81,002	9,271	Lumber	15,720	11,015	4,705
Dyeing and finishing	1,939	[3] 6,979	[3] 5,040				
Furniture	77	1,094	1,017				

GEORGIA

Cotton goods	55,868	69,735	13,867	Lumber	15,454	10,665	4,789
Knit goods	6,018	9,419	3,401	Planing-mill products	2,788	1,842	946
Men's clothing	[1] 3,758	[3] 6,528	[3] 2,770	Marble, granite, etc.	2,303	1,473	830
Woolen and felt goods	[1] 1,182	2,441	1,259				
Boxes, wooden	1,231	2,164	933				
Bread	1,906	2,657	751				
Cottonseed oil	1,519	2,240	721				
Dyeing and finishing	1,145	1,582	437				

FLORIDA

Canning, fruit, etc.	1,735	4,372	2,637	Cigars and cigarettes	12,072	9,996	2,076
Boxes, wooden	1,030	2,767	1,737	Lumber	17,438	15,400	2,038
Bread	1,724	2,520	796	Ice, manufactured	1,461	650	811
Beverages, alcoholic	0	[3] 385	[3] 385				
Fertilizer	1,084	1,318	234				
Canning, fish, etc.	188	290	202				

KENTUCKY

Beverages, alcoholic	[1] 720	3,301	[3] 2,581	Lumber	4,604	3,461	1,143
Cigars and cigarettes	2,284	3,446	1,162	Boots and shoes	2,438	1,407	1,031
Steel works and rolling mills	5,358	6,490	1,132	Printing and publishing, newspapers, etc.	1,540	1,097	443
Bread	1,620	2,262	642				
Meat packing	892	1,254	362				
Wood, turned	51	367	316				
Furniture	2,890	3,205	315				
Knit goods	1,195	1,496	301				

TENNESSEE

Men's clothing	3,588	[3] 9,736	[3] 6,148	Motor-vehicle bodies and parts	3,419	92	3,327
Knit goods	17,839	[3] 20,956	[3] 3,117	Lumber	10,304	7,092	3,212
Heating and cooking apparatus	[3] 2,771	5,427	[1] 2,656	Planing-mill products	3,701	3,138	563
Boots and shoes	2,116	4,464	2,348				
Wood, turned	1,222	3,542	2,320				
Rayon and allied products	7,537	9,582	2,045				
Chemicals, n. e. c.	1,360	3,051	1,691				
Bread	2,124	2,846	722				
Cotton goods	7,544	7,834	340				
Pulp	477	762	285				
Paper	466	569	103				

See footnotes at end of table.

TABLE 6.—*Changes in Employment in Manufacturing Industries from 1929 to 1937, by State*—Continued

ALABAMA

Industries with increase in employment				Industries with decrease in employment			
Industry	Number of wage earners			Industry	Number of wage earners		
	1929	1937	Increase		1929	1937	Decrease
Cotton goods	27,724	37,667	9,943	Lumber	25,954	17,293	8,661
Steel works and rolling mills	9,253	11,242	1,989	Cast-iron pipe	9,335	8,316	1,019
Knit goods	2,607	[3] 3,734	[3] 1,127	Blast-furnace products	2,398	1,831	567
Cottonseed oil	988	1,652	664	Planing-mill products	1,982	1,418	564
Bread	1,513	1,950	437				
Coke-oven products	1,606	2,041	435				
Paper	[1] 710	982	[3] 272				
Pulp	[1] 450	665	[3] 215				

MISSISSIPPI

Men's clothing	[1] 2,395	[3] 6,257	[3] 3,862	Lumber	30,747	17,045	13,702
Canning, fish, etc	636	2,211	1,575				
Cotton goods	2,342	3,031	689				
Wood distillation	449	884	435				
Boxes, wooden	560	931	371				
Cottonseed oil	2,080	2,329	249				
Canning, fruit, etc	387	578	191				

ARKANSAS

Canning, fruit, etc	1,347	2,315	968	Lumber	21,541	17,322	4,219
Wood, turned	547	1,103	556				
Furniture	1,551	1,962	411				
Cotton goods	617	819	202				

LOUISIANA

Sugar, cane	2,319	[1] 4,221	[1] 1,902	Lumber	30,116	20,642	9,474
Canning, fish, etc	1,402	2,530	1,128	Petroleum refining	6,982	4,483	2,499
Sugar refining, cane	2,223	3,181	958				
Pulp	996	1,793	797				
Paper	1,150	1,942	792				
Chemicals, n. e. c	[1] 147	821	[3] 674				
Beverages, alcholic	342	[3] 826	[3] 484				
Canning, fruit, etc	415	720	305				

OKLAHOMA

Foundry and machine-shop products	1,973	[3] 2,547	[3] 574	Lumber	2,883	2,162	721
Butter	257	635	378	Clay	583	301	282
Meat packing	[1] 1,857	2,198	[3] 341				
Bread	1,706	2,016	310				
Flour	746	934	188				
Petroleum refining	5,164	5,310	146				

TEXAS

Foundry and machine-shop products	8,422	[3] 11,545	3,123	Lumber	16,387	13,117	3,270
Canning, fruit, etc	597	3,284	2,687	Ice, manufactured	2,946	1,688	1,258
Petroleum refining	19,434	21,017	1,583	Clay	2,244	1,588	656
Shipbuilding	579	2,075	1,496				
Men's clothing	3,941	[3] 5,156	[3] 1,215				
Bread	5,137	6,323	1,186				
Beverages, alcoholic	0	916	916				
Cotton goods	4,649	5,538	889				
Bone black	842	1,554	712				
Flour	1,326	1,770	444				

See footnotes at end of table.

TABLE 6.—*Changes in Employment in Manufacturing Industries from 1929 to 1937, by States*—Continued

MONTANA

Industries with increase in employment				Industries with decrease in employment			
Industry	Number of wage earners			Industry	Number of wage earners		
	1929	1937	Increase		1929	1937	Decrease
Sugar, beet	356	689	333	Lumber	3,501	2,810	691
Petroleum refining	168	430	262				
Printing and publishing, newspapers, etc	394	614	220				

IDAHO

Canning, fruit, etc	222	374	152	Lumber	11,228	8,040	3,188
Bread	267	408	141				

WYOMING

Bread	152	256	104	Petroleum refining	1,679	1,169	510

COLORADO

Foundry and machine-shop products	1,036	[3] 1,782	[3] 746	Lumber	1,219	795	424
Meat packing	1,497	1,934	437	Printing and publishing, book, music, and job	1,034	691	343
Beverages, alcoholic	0	[3] 299	[3] 299	Confectionery	508	279	229
Bread	1,689	1,915	226	Printing and publishing, newspapers, etc	1,121	975	146

NEW MEXICO

Lumber	1,549	2,030	481				
Bread	177	284	107				

ARIZONA

Bread	322	514	192	Smelting and refining copper	3,711	2,262	1,449
				Lumber	2,084	1,527	557
				Ice, manufactured	399	231	168

UTAH

Sugar, beet	691	851	160	Flour	431	295	136
				Canning, fruit, etc	1,859	1,732	127
				Smelting and refining, lead	1,468	1,370	98

WASHINGTON

Pulp	2,394	4,318	1,924	Lumber	58,570	48,615	9,955
Canning, fruit, etc	3,720	4,910	1,190	Clay	1,066	474	592
Beverages, alcoholic	0	910	910	Canning, fish, etc	1,122	968	154
Paper	2,774	3,345	571				
Planing-mill products	3,600	4,169	569				
Feeds, prepared for animals and fowls	410	632	222				
Bread	2,607	2,827	220				
Furniture	1,632	1,844	212				
Meat packing	1,283	1,424	141				

See footnotes at end of table.

TABLE 6.—*Changes in Employment in Manufacturing Industries from 1929 to 1937, by State*—Continued

OREGON

Industries with increase in employment				Industries with decrease in employment			
Industry	Number of wage earners			Industry	Number of wage earners		
	1929	1937	Increase		1929	1937	Decrease
Lumber	34,832	36,040	1,208	Printing and publishing, book, music, and job	665	503	162
Paper	1,115	2,008	893				
Canning, fruit, etc	4,101	4,919	818				
Pulp	734	1,236	502				
Furniture	2,095	2,222	127				
Bread	1,647	1,768	121				

CALIFORNIA

Aircraft	1,277	11,520	10,243	Lumber	21,822	17,977	3,845
Canning, fruit, etc	28,186	34,055	5,869	Agricultural implements, engines, tractors, etc	3,624	1,300	2,324
Beverages, alcoholic	265	4,032	3,767	Millinery	2,702	1,100	1,602
Women's clothing	7,165	[3] 9,697	[3] 2,532	Foundry and machine-shop products	17,186	15,647	1,539
Canning, fish, etc	4,319	6,499	2,180	Clay	4,983	[3] 3,455	1,528
Bread	11,395	13,519	2,124	Planing-mill products	7,159	5,769	1,390
Motor vehicles	5,443	7,229	1,786				
Heating and cooking apparatus	[1] 1,899	3,586	[3] 1,687				
Meat packing	3,858	5,413	1,555				
Printing and publishing, newspapers, etc	6,876	8,359	1,483				
Chemicals, n. e. c	2,152	3,225	1,073				
Structural and ornamental metal work	1,973	2,977	1,004				
Glass	1,526	2,444	918				
Motor-vehicle bodies and parts	2,170	3,048	878				
Petroleum refining	8,133	8,858	725				
Men's clothing	[1] 5,759	[3] 6,404	[3] 645				
Pottery	1,068	1,568	500				
Knit goods	1,834	2,290	456				
Steel works and rolling mills	6,616	7,055	439				
Paper	1,763	2,181	418				

[1] Indicates that the actual employment figure or actual change is less than the indicated number.
[2] Withheld to avoid disclosure.
[3] Indicates that the actual employment figure or actual change is greater than the indicated number.
[4] Indicates an approximate employment change, when employment for 1929 and 1937 is given approximately.

SHARE-THE-WORK PROVISIONS IN UNION AGREEMENTS [1]

IN ALL but a few industries and trades today a large proportion of the workers are unable to secure full-time employment throughout the year or over a period of years. Very few plants or trades are unaffected by seasonal fluctuations. Even where work has been regularized on a yearly basis, there remains the problem of unemployment or partial employment caused by general business depressions. At certain times, in certain industries, there is also unemployment due to changes in style and improvement in processes or machinery. This latter, as well as prolonged downswings in the business cycle, may lead to permanent reduction of a plant's force, at least as far as particular groups of workers are concerned. Serious seasonal fluctuations may also result in the permanent displacement of some of the workers.

For those finally laid off, the union agreement can provide no permanent solution, although dismissal-wage provisions [2] offer some temporary assistance. For short-time declines in business production, some unions have worked out plans whereby available work is distributed as evenly as possible among all the workers. These share-the-work plans have the effect of deferring lay-offs or, if production is resumed before too long a time has elapsed, of preventing lay-offs altogether. Sharing the work, of course, does not increase the total labor income—it merely distributes what income there is among the entire labor force.

If such sharing of the work results in the spreading of employment to such an extent that none of those covered receives even a subsistence wage, the merits of a share-the-work plan can be seriously questioned. To obviate such a situation some union agreements provide that work shall not be shared below an established number of hours per week and that lay-offs must take care of any further reduction which might be needed. For such lay-offs the union agreement usually provides certain formulae, such as straight seniority, combination of seniority and merit, etc.[3]

In any application of a share-the-work plan, a basic consideration is the number of workers who are covered; that is, the extent of the spread of available work. Some union agreements, for instance, provide that workers recently employed be laid off before there is any sharing of work for the remaining older employees. Others provide

[1] Prepared by the Bureau's Industrial Relations Division.

[2] Dismissal-wage plans most frequently occur in agreements of the Newspaper Guild. See Monthly Labor Review, April 1940 (pp. 832-833). A Nation-wide agreement on the railroads provides dismissal compensation for those laid off because of consolidations.

[3] See Monthly Labor Review, December 1938: Seniority Provisions in Union Agreements.

that the sharing-of-work plans shall be applied on an occupational basis; some on a plant-wide basis. Such variations in plans have been developed as a result of a union's past experimentation—the reaction of its members, as well as the response from the employers. The intrinsic nature of the business or the plant's operation is a fundamental factor. For instance, if there is a wide difference in skill requirements for some or all of the occupations, the share-the-work plan is likely to be either on an occupational basis or to provide certain exemptions or modifications.

In unions covering particular craftsmen who are engaged intermittently by a number of employers, such as in the building trades or longshoring, sharing of work may be on a city-wide basis or applied through the rotation of job assignments at the hiring hall.

About one-fourth of the workers, covered by the 7,000 current union agreements on file with the Bureau of Labor Statistics, work under agreements which contain share-the-work provisions. Many agreements first tackle the problem of distributing available work through regulation or prohibition of overtime. From that point the share-the-work plans now provided in union agreements are of three general types: Equal division of available work; some, but not equal distribution of work; and combined work-sharing and lay-off plans.

Regulating Overtime to Spread Work

Almost every union agreement includes provisions governing overtime work. Many of these are designed to protect the regular maximum workday and workweek through such provisions as those requiring payment of a higher rate for hours worked in excess of the regular number. In some cases, however, the overtime provisions are designed to prevent some members of the union from working extra hours while other members are unemployed.

Some highly seasonal industries under union agreements prohibit overtime entirely. Examples are the men's and women's clothing industries. In these cases the prohibition of overtime tends somewhat to lengthen the busy season and to curtail the periods when the shops in the industry are shut down.

In some agreements overtime work is prohibited only when there is some unemployment among members of the union. In unions which organize the workers in a trade into a city-wide local, overtime is sometimes prohibited as long as any member of the local union—regardless of his previous place of employment—is unemployed. In other agreements overtime may be prohibited only when regular employees of a department or plant are unemployed. A variation of this type of provision prohibits overtime until plant facilities are being utilized full time.

Men working during the day cannot work at night or overtime as long as members are unemployed. (Painters, Decorators, and Paperhangers.)

No overtime shall be permitted unless all members are employed, and with the consent of the union. (Fur and Leather Workers.)

No overtime work may be permitted unless all workers are employed full time and unless all available machines and benches are occupied, except where there are no additional workers available or by special permission of the union. (Hatters, Cap, and Millinery Workers.)

It is understood that no overtime will be permitted so long as there is space available for the employment of additional help in the factory. (Handbag, Pocketbook, and Novelty Workers.)

No overtime will be worked in a department as long as employees are laid off in that department. (Brewery Workers.)

In some instances overtime is not prohibited altogether, but the amount permitted is so small as to mean a virtual prohibition. The effect is to cause the hiring of additional employees instead of having available work done on overtime.

Steadily employed members may work overtime in case of emergency, but such overtime shall not exceed 1 hour in any 1 day, and shall not exceed 2 hours in any 1 week. (Bakery and Confectionery Workers.)

Although most unions prefer to require that overtime work be paid for at a higher rate, the Typographical, Pressmen's, and Stereotypers' and Electrotypers' Unions, in order to divide available work, require the locals to make rules for the cancelation of overtime by employing unemployed members as substitutes. For instance, the Typographical Union requires any member who has worked overtime to take an equivalent time off during the regular hours and give that time to a substitute, as long as competent substitutes are available. The substitute must be engaged as soon as the amount of overtime equals two-thirds of a regular workday. If the agreement sets a 5-day week, work on the sixth or seventh day of the week is also to be canceled by the employment of a substitute at the first opportunity.

Equal Division of Available Work

Many agreements provide for the equal division of available work during slack seasons. Such a provision entirely prevents lay-offs during the life of the agreement, which is usually 1 year. All of those employed at the time the agreement was signed remain on the company's pay roll, even though the hours they actually work may be reduced to a mere fraction of the regular workweek. During a severe seasonal slump the plant will shut down for part of each week or operate with only a skeleton force at any one time.

For the workers employed under an agreement with the equal division of work provision, the most important question is whether the equal division applies throughout the plant or in department or occu-

pational units. The provisions given below use the entire plant as a unit, although in practice certain adjustments may be made to facilitate plant operation in slack times.

There shall be an equal distribution of work in the slack season. No worker shall be laid off because of lack of work, but all the work there is shall be distributed as equally as possible among all the workers who had been employed during the season. (Amalgamated Clothing Workers.)

At all times there shall be an equal distribution of work among all workers in the shop. Such distribution of work shall be arranged between the shop committee of the workers and the employer, in such a way as not to hinder shipments. (Hatters, Cap, and Millinery Workers.)

The following provision limits the equal division of work in the plant to those employees with more than 2 weeks' service.

The principle of equal division of work shall be practiced during the dull season to the fullest possible extent among all fur workers employed by this firm. One that has worked for the firm at least 2 weeks is entitled to such division of work. (Fur and Leather Workers.)

In agreements of the Cigar Makers' Union, covering the manufacture of cigars by hand, it is customary to divide the work during dull periods by allotting to each worker and apprentice in the shop an equal amount of work. Workers are paid on a piece-rate basis and each worker is given a fixed daily quota; after finishing his quota, he is out of work until the next order comes in. During the period that such a production limit is in effect, new help cannot be hired.

In time of depression of business all journeymen and apprentices shall be placed on an equal limit, no help to be hired during such period, nor for a period of 2 weeks thereafter. (Cigar Makers.)

In a few industries equal division of work is secured by rotating the regular employees. Longshore workers on the Pacific Coast are given available work in rotation. Under the union agreement longshoremen seeking work must register at the port's hiring hall. As the employers request help, the men are dispatched from the hiring hall in rotation. By keeping records on the number of hours each longshoreman works, the hiring hall distributes work evenly among those registered. Brewery agreements usually specify that an employee will work alternate periods during the slack season. In this industry extra workers are frequently hired during the busy season. These extra workers must secure a permit card from the union before starting to work and are called "permit-card men." Before rotation of work is instituted in the plant, all extra workers are laid off.

If it becomes necessary employees may be laid off impartially and in rotation. No one shall be laid off for longer than a week, or less than a day at a time. Permit-card help must be discharged before regular union members can be laid off. (Brewery Workers.)

To avoid discharge during dull seasons, all employees working under this contract shall be laid off impartially in rotation, and no longer than 6 days at a time, and no less than 1 day at a time. After a member has been laid off 6 days he shall not be laid off again until he has worked 6 days. (Brewery Workers.)

Some agreements do not attempt to distribute available work during the slack season to all employees of a company, but divide the employees into groups according to the departments or occupations in which they are employed. The available work is then divided among the employees in that grouping. Agreements of craft unions which provide for work-sharing necessarily come within this group, since the craft unions bargain only for a single occupation or a few related occupations. It should be noted that the first provision cited definitely recognizes the participation of the shop committees in the distribution of work.

All available work for a craft in the shop shall be equally divided among the respective workers in such craft by a representative of the firm and the shop chairman or committeemen. (Handbag, Pocketbook, and Novelty Workers.)

The employer agrees that all work shall be as equally divided among the employees of the various departments in slack season as in period of full-time employment. (Furniture Workers.)

Some, But Not Equal, Distribution of Work

The following provisions require the company to make some distribution of work among all employees in the plant. There is no guarantee, however, that earnings will be equalized. The second provision below excludes new employees from the distribution of work.

The employer shall rotate the weavers, distribute the work and place weavers on looms on any basis which is neither discriminatory nor prejudicial and which basis will take into consideration ability and seniority. In determining the status of an individual weaver's ability, the employer will give consideration to past performance, differentials in mesh, and extra hazards assumed. (Wire Weavers.)

In the event that the available work is insufficient to give all the employees a full week's work, the company agrees to spread the work so far as is possible and practicable, * * * with the exception of an employee not having a full year's service with the company, shall not be entitled to the spread of time. It is mutually understood that the union will designate a man from time to time to work in conjunction with the company in the spread of time, conveying the suggestions of the union to the company. (Gas, Coke, and Chemical Workers.)

In building construction there may be rotation of work when the agreement requires contractors to secure all employees through the union. Since most building-construction employment is intermittent, a new working force is sent out by the union when a job begins. The union may therefore secure sharing of work by sending workers out in rotation, according to the length of time they have been unemployed. The Musicians' Union sometimes rotates work in the same way.

Unions which organize all workers in a city into a city-wide local regardless of their place of employment may adopt the practice of reducing the maximum weekly hours throughout the city during a slack season. This has the effect of spreading available work among the workers, but does not provide for an equal distribution.

The significance of this type of provision is that work sharing is attempted on a city-wide basis and the union thus goes beyond the attempt merely to distribute available work among those employed by a single company. Such provisions are likely to be used extensively in periods of serious business depression when the unemployment exceeds that due to seasonal fluctuations.

Some provisions of this type do not specify the reduced maximum hours, but leave the matter to joint determination at the time the slack work occurs. In this way, the amount of the reduction can be determined according to the seriousness of the slump in business.

The employer will comply in all respects with the union system now in force and effect, whereby each union journeyman has agreed to give up a part of his week's work to an unemployed union baker who will be substituted in his place and stead. (Bakery and Confectionery Workers.)

In time of slack periods, when there are members belonging to the local branch unable to secure employment, the working hours shall be reduced so that all the members of that branch shall be given an opportunity to work, this arrangement to be made by the superintendent. (Paving Cutters.)

The following provisions have the effect of putting all workers in the trade on a 3-day week as long as any worker in the city is unemployed. The first provision, in building construction, limits the 3-day week to the winter months. If there is not as much as 3 days' work for all employees hired by a contractor, whatever work is available must be equally divided.

It is understood and agreed that in order to equitably divide the work amongst the employees during the months of January, February, and March, no one shall be permitted to work more than 3 days in each week. All available work shall be divided by the employer equally among the shop men. (Painters, Decorators, and Paperhangers.)

Any member having worked 3 days in one shop shall not be allowed to work the balance of the week in another shop, provided there are members out of work capable of making the class of work required. (Cigar Makers.)

Agreements sometimes provide for an automatic reduction in working hours as soon as a specified percent of the union members throughout the city are unemployed.

Whenever 20 percent of the class "A" journeymen, employed by electrical contractors, become unemployed for a period of 2 weeks, the 8-hour day shall automatically be reduced to 7 hours or 6 hours per day, the amount of reduction to be determined by a joint meeting of the conference committee and the contractor's labor committee. (Electrical Workers.)

Combined Work-Sharing and Lay-Off Plans

In cases of a severe seasonal depression or a downward fluctuation in the business cycle, both the company and the employees may object to strict application of the equal division of work principle. Some agreements therefore provide for two steps when business falls off: First, equal division of work until hours are reduced to a specified point (usually 24 or 32 hours a week); second, if further curtailment is necessary, lay-off of the regular employees, usually according to seniority. Occasionally the questions of when lay-offs are to begin and the method of lay-off are left to subsequent negotiation. Such plans may be applied to the plant as a whole or separately to each department or occupation.

For the purpose of an equitable distribution of work in dull or slack periods, the employer shall first reduce the number of working days to 4 days per week of 8 hours per day. If, in spite of this measure, the employer finds a reduction in the number of employed essential, in consultation with the union he shall be permitted to reduce his force in accordance with the requirements of his business. (Cigar Makers.)

When the amount of work becomes less than is required to give full-time employment to all the regular employees, the work available shall be divided equally among all the regular employees.

In the event that the available work is so low in volume as not to give sufficient part-time work to all the regular employees, seniority shall prevail in the allocation of work; i. e., the last man hired shall be the first laid off; in rehiring the employees shall be taken on in the order in which they were laid off. (Gas, Coke, and Chemical Workers.)

Equal division of work in each department shall prevail during a slack season. In event such equal division of work becomes impractical, seniority and ability will be given first consideration. Work shall be deemed impractical at any time it falls below 20 hours per week. (Furniture Workers.)

During slack periods work shall be divided equally among all workers who are performing the same kind of work. So far as practical, temporary workers shall be laid off first and the work available shall be shared among the permanent workers so long as there is available 32 hours of weekly work for such permanent employees and when the amount of available work is not sufficient to afford 32 hours of weekly employment, for such permanent workers, then the company shall commence lay-offs in accordance with the seniority rights. (Textile Workers.)

Since employees in a slack department may be laid off while those in other departments with less seniority continue at work, some agreements include guaranties for such employees. For example, in the first provision below, the company agrees to give "first consideration" to the transfer of employees with 3 or more years of service to another department. The second specifically requires the transfer of employees from one classification to another in order to recognize seniority rights. This provision has the additional feature of postponing lay-offs by requiring the department to operate on a short week for at least 8 weeks before laying off any employee.

Security of employment.—When the amount of work available becomes less than is required to give full-time employment to all the employees, the work available shall be divided equally among all the employees.

In the event that the available work in any one department is so low in volume as not to give 24 hours per week minimum employment to all the employees, lay-offs shall take place on a basis of departmental seniority as per departmental chart * * *, duly signed and agreed upon, with the exception of those employees who have been in the employ of the employer for a period of 3 years or more, in which case the question of shifting them to other departments in order to retain their employment shall be given first consideration, provided they are capable and efficient and willing to accept wage scale applicable to the position to which they are assigned by the employer. (Gas, Coke, and Chemical Workers.)

In the event it becomes necessary to curtail production in any department, the hours shall be reduced to 24 hours per week for a period of 8 weeks before any lay-offs are made; at the expiration of the 8 weeks' period, employees shall be laid off according to seniority. It is understood that in equalizing the time in accordance with this paragraph, employees shall have the right to move from their regularly assigned operations to other operations according to classification of labor, male or female. (Rubber Workers.)

In some cases the agreement provisions are less detailed and merely outline the general principles adopted, leaving the exact procedure up to the company or to subsequent negotiations by the company and the union.

When work becomes slack, the company shall rotate the work or alternate the employees within the department in such a manner that each and every employee shall receive a just and equal share of work as long as such reduction in work per employee does not fall below a minimum of 30 hours per week. In the event the work becomes slack to the extent that the hours of employment fall below the minimum, then the management and the grievance committee of the union shall mutually agree as to any further adjustment in the hours of employment per week. All employees hired after [date] are to be laid off before any reduction in hours per week for the regular employees. (Furniture Workers.)

With a view of maintaining the most harmonious relations possible and the utmost teamwork between fellow employees, work shall be distributed equally among regular employees doing similar work, and no lay-off shall occur if it is possible for all regular employees doing similar work to have at least 3 days' work each week of 8 hours per day or instead of 3 days per week the work is to be distributed on the basis of alternate weeks at the discretion of the company. In the event that lay-offs shall become necessary such lay-offs shall be made on the basis of seniority as above set forth. (Radio, Electrical and Machine Workers.)

So far as is practicable without reducing the efficiency of the plant, the corporation will—

(1) When the work available in any craft or classification within such craft is insufficient to keep all men therein fully employed, transfer or lay off employees with less than 1 year's service so as to avoid reduction in the hours of work or the lay-off of employees with service beyond 1 year.

(2) During periods of lowered production, as shrinkage in the volume of available work in any craft or classification within that craft makes it necessary, equally

divide the available work among all the employees with more than 1 year's service in that craft or classification within such craft, either by reduction of hours or rotation of employees, until the work available for such employee would be less than three-fifths of the working time permitted by this agreement. (Marine and Shipbuilding Workers.)

Optional Provisions

Some provisions do not specify the method to be followed when a slump occurs, but provide for the participation of the employees in the decision when the time arrives. Such an optional provision in the agreement requires consideration of whatever plan the workers decide to propose.

In the event, however, that the company finds it necessary to lay workers off because of business conditions it shall be the union's right to decide whether the lay-off should be by seniority or whether hours of all employees shall be shortened in order to avoid the lay-off. (Furniture Workers.)

During periods of slack production, the employer shall consult the shop committee as to whether employees shall be laid off or whether available work shall be divided equally and equitably as far as it is practicable to do so or whether an arrangement shall be made combining elements of both plans above set forth. Every effort will be made to arrange a plan acceptable to the employees. (Wall Paper Crafts.)

EXPENDITURES OF WAGE EARNERS AND CLERICAL WORKERS FOR HOUSEFURNISHINGS AND OPERATION [1]

ABOUT a twelfth of the total outlay of the moderate-income city family goes for household expenses even after rent, heat, and light have been paid for.[2] These additional expenses are made up of sums for furnishings and household equipment, cleaning supplies, laundry and domestic service, telephone, water rent, insurance on furniture, and other miscellaneous items connected with the running of the household. They averaged almost $120 a year, or 7.8 percent of total expenditure of $1,512, for families of employed wage earners and lower salaried clerical workers in 42 large cities in 1934–36. Expenditures for these items, as will be seen from table 1, were about equally divided between furnishings and equipment on the one hand and household operation [1] on the other.

For families at the lowest income levels studied, the amounts spent averaged less than $30 per year for each of these categories, whereas families with annual incomes above $2,400 spent over $90 a year on the average for each (see table 1). At the highest income levels covered in this investigation, there was a tendency for expense for household operation to exceed that for furnishings and equipment, due principally to greater use of laundry service and paid help.

Expenditures at Different Income Levels

As a proportion of total family expenditures, the outlays for household operation and for furnishings and equipment each claimed around 2 to 4 percent at different income levels. There was, however, a real difference in tendency for the two types of expenditure. For household operation there is a consistent tendency for the proportion of total expenditures to increase from about 3 percent to almost 4½ percent at the highest levels studied. This change is primarily due to the increase in use of household services, which is subject to considerable expansion as dollars for spending are greater.[3]

[1] Other than fuel, light, and refrigeration, which were included with housing proper, and described in article on "Housing Facilities and Expenditures of Wage Earners and Clerical Workers" in Monthly Labor Review for April 1940.

[2] For data on expenditures for housing proper see Monthly Labor Review for April 1939. The present article is the seventh in a series prepared by the Bureau's Cost of Living Division, presenting a summary of data collected in the Study of Money Disbursements of Employed Wage Earners and Clerical Workers in 1934–36 for 42 cities combined. Altogether, 14,469 white and Negro families were covered by this report. They lived in 42 cities, all with populations over 50,000. No families with incomes below $500 or which had received any relief during the year were included in the investigation. See Bureau of Labor Statistics Bulletins Nos. 636, 637, vols. I and II, Nos. 639, 640, 641, and articles in the Monthly Labor Review for December 1939 and January, February, March, April, and May 1940. The final report will be published as Bulletin No. 638.

[3] Data from the Study of Consumer Purchases, Urban Series (see vol. I of Bureau of Labor Statistics Bulletins Nos. 642–647 and 649, also vol. IV of Bureau of Labor Statistics Bulletin No. 648) confirm these findings and show considerable elasticity in expenditures for household operation at higher income levels.

Expenditures for furnishings and equipment showed a different tendency. They were severely restricted at the lowest income level, where they amounted to only 2 percent of total expenditure. The percentage rose with income to a maximum of a little over 4 percent at around the $2,000 family income level, but thereafter tended to decline.[4]

TABLE 1.—*Annual Expenditures for Furnishings and Equipment, and for Household Operation [1] by Income Level*

[Data cover 12 months within the period 1934–36]

Families with annual net income of—	Average expenditure per family for—		Percentage of total money expenditure for—	
	Furnishings and equipment [2]	Household operation	Furnishings and equipment [2]	Household operation
All families	$60	$58	4.0	3.8
$500 to $600	13	20	2.0	3.1
$600 to $900	28	30	3.3	3.5
$900 to $1,200	39	38	3.5	3.4
$1,200 to $1,500	55	49	4.0	3.6
$1,500 to $1,800	70	63	4.3	3.9
$1,800 to $2,100	77	77	4.1	4.1
$2,100 to $2,400	90	92	4.2	4.3
$2,400 to $2,700	96	102	4.0	4.2
$2,700 to $3,000	83	119	3.1	4.4
$3,000 and over	112	142	3.4	4.4

[1] Other than fuel, light, and refrigeration, which were included with housing proper.
[2] Includes all purchases made during the year whether paid for or not. Full price of goods purchased on installment (purchase price less trade-in allowance, if any, plus carrying charges, if any) is included here, regardless of balances owing on installment.

At the low income levels the bare minimum for replacement of the most necessary household goods is about all that can be afforded. Families in somewhat better economic circumstances must also make replacements, but at least a part of their expenditure is directed toward additions to their stock of furniture and equipment, articles of the type which contribute to comfort and a few that partake of the nature of luxury consumption, chairs, tables, dressers, supplemented by inexpensive items of decoration in the form of curtains, table linen, floor coverings, lamps and pictures, in conjunction with a few convenience items, such as electric refrigerators and vacuum cleaners. Once these things are achieved, there is little thought of their replacement until they wear out, within the income ranges of families studied in this investigation. Changing the style of home furnishings to express changes in the taste of the family members can be carried out by moderate-income families only with respect to inexpensive accessories, not for major items of furnishings. Consequently, though

[4] Similar tendencies were found in the Study of Consumer Purchases, Urban Series, where in most cities the proportion of total expenditures going for furnishings and equipment reached a maximum at around $2,000 and then dropped off. (See references in footnote 3.)

Fig. 1

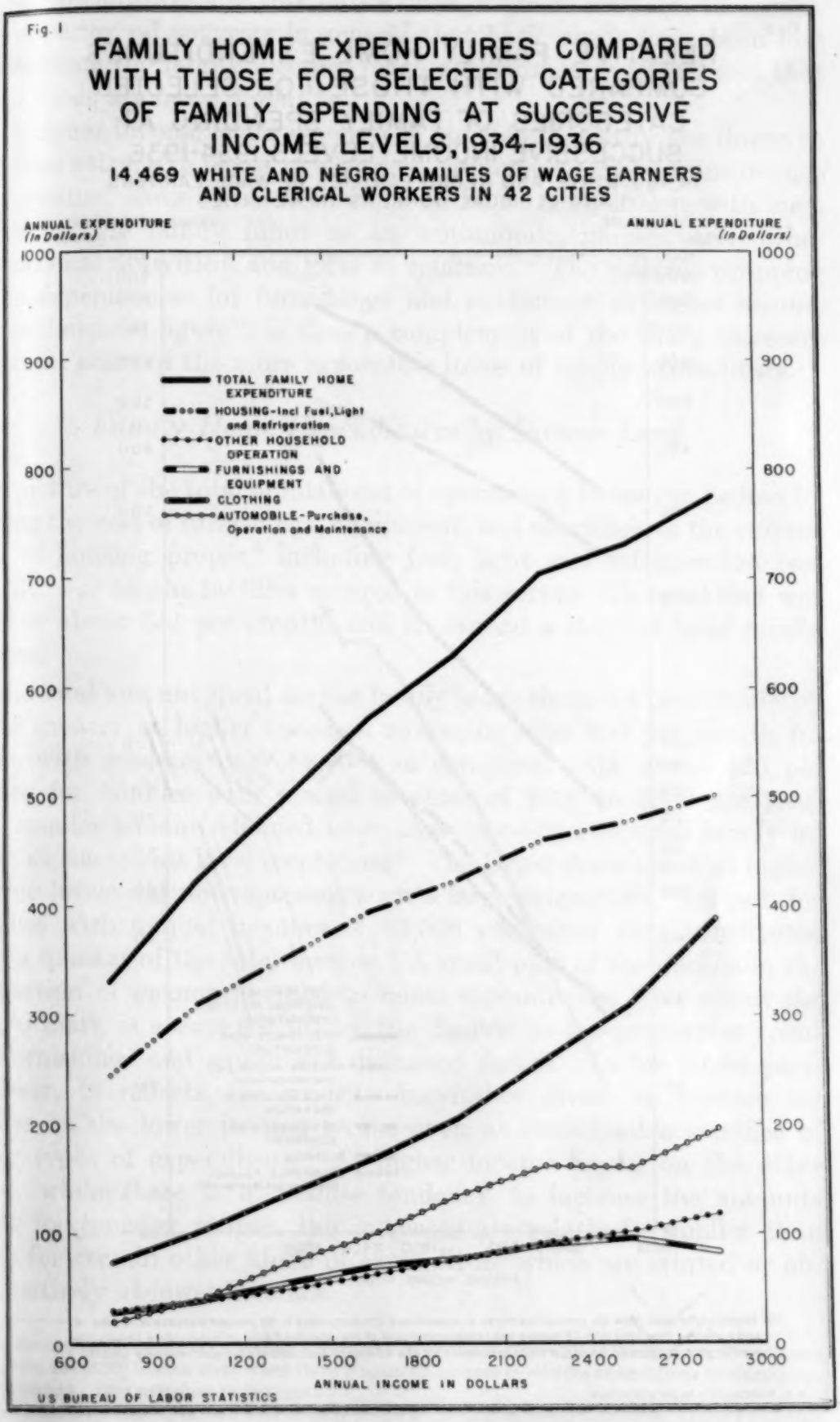
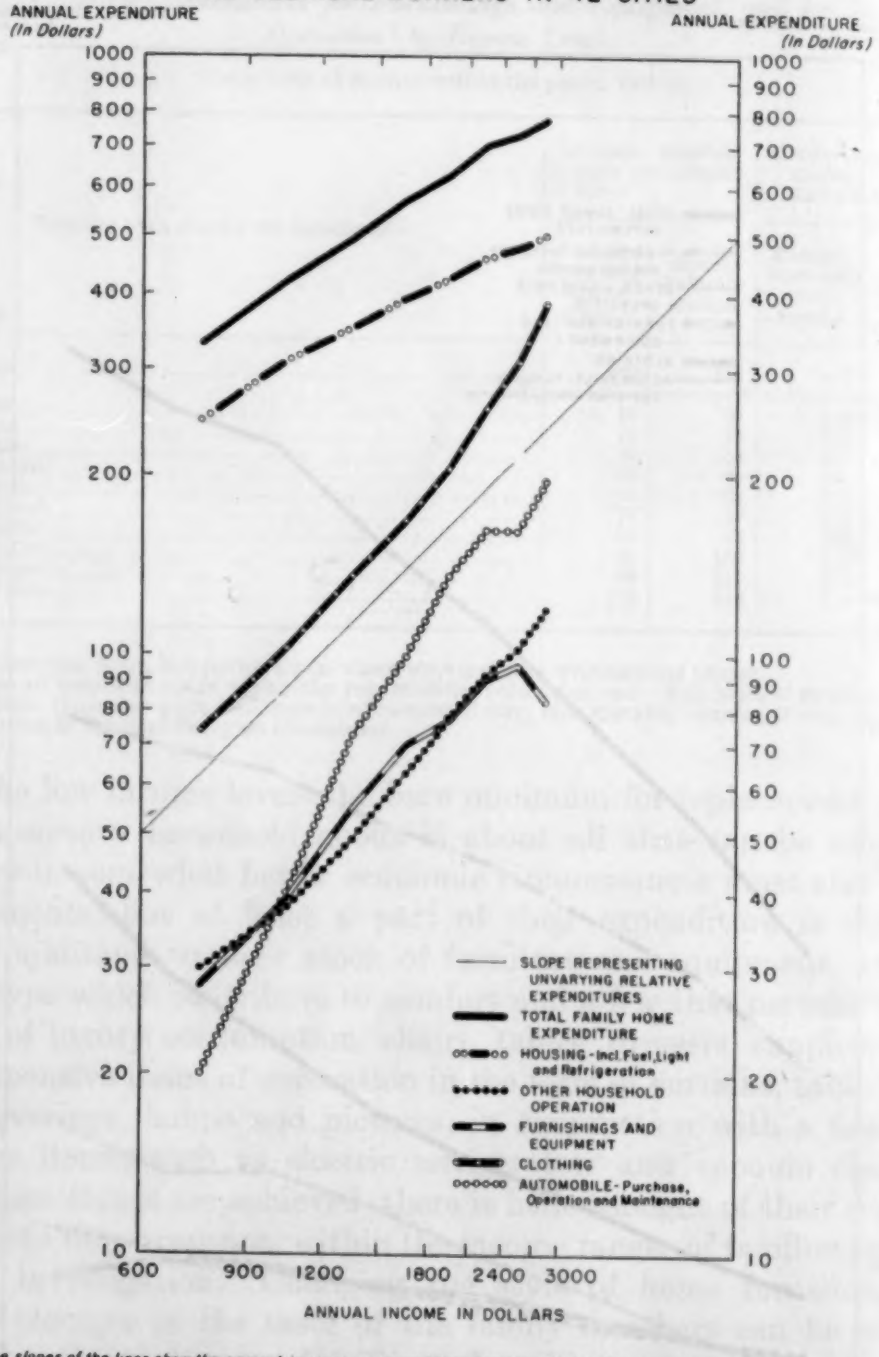

FAMILY HOME EXPENDITURES COMPARED WITH THOSE FOR SELECTED CATEGORIES OF FAMILY SPENDING AT SUCCESSIVE INCOME LEVELS, 1934-1936
14,469 WHITE AND NEGRO FAMILIES OF WAGE EARNERS AND CLERICAL WORKERS IN 42 CITIES
ANNUAL EXPENDITURE (In Dollars)
ANNUAL EXPENDITURE (In Dollars)
TOTAL FAMILY HOME EXPENDITURE
HOUSING-Incl Fuel, Light and Refrigeration
OTHER HOUSEHOLD OPERATION
FURNISHINGS AND EQUIPMENT
CLOTHING
AUTOMOBILE-Purchase, Operation and Maintenance
0
100
200
300
400
500
600
700
800
900
1000
600
900
1200
1500
1800
2100
2400
2700
3000
ANNUAL INCOME IN DOLLARS
US BUREAU OF LABOR STATISTICS

Fig 2

RELATIVE FAMILY HOME EXPENDITURES COMPARED WITH THOSE FOR SELECTED CATEGORIES OF FAMILY SPENDING AT SUCCESSIVE INCOME LEVELS, 1934-1936

14,469 WHITE AND NEGRO FAMILIES OF WAGE EARNERS AND CLERICAL WORKERS IN 42 CITIES



The slopes of the lines show the percent increase in expenditure corresponding to the percent increase in income. A slope greater than that of a 45 degree line represents a gain of the specified kind of expenditure relatively greater than the gain in income, a slope less than that of a 45 degree line represents a gain relatively smaller

U. S. BUREAU OF LABOR STATISTICS

dollar expenditures for this entire class of goods increase, their relative tapering off suggests in general that basic needs have been met by the time the family incomes reach approximately $2,000 and that other needs are more urgent.[5]

At higher income levels where it is possible to gratify the desire to purchase attractive pieces of electrical equipment, new curtains or rugs or furniture, these items are found to be in competition with such rivals for the family funds as an automobile, movies, and other recreational activities, and gifts to relatives. The relative dropping off in expenditures for furnishings and equipment at higher income levels shown in figure 2 is thus a complement of the sharp increases shown in some of the more expansible items of family expenditure.

Family Home Expenditures by Income Level

A picture of the total annual cost of operating a home can be had by adding the cost of furnishings, equipment, and operation to the current cost of housing proper,[6] including fuel, light and refrigeration (see fig. 3). For all the families covered in this survey this total cost was $528 or about $44 per month, and it claimed a third of total family income.

The total amount spent for the family home showed a clear tendency to be greater at higher incomes, averaging over $50 per month for those with incomes over $2,000, as compared with about $20 per month for families with annual incomes of $500 to $600 per year. The smaller amount claimed more than two-fifths of total family income at the lowest level mentioned. The larger sums spent at higher income levels did not represent such a large proportion. Indeed, for families with annual incomes of $3,000 and more they constituted only a quarter of the total income. A small part of the decline in the proportion of income devoted to home expenditures after about the $2,000 mark is accounted for by the decline in the proportion spent for furnishings and equipment discussed earlier. In far larger part, however, it reflects the priority inevitably given to expense for shelter at the lower income levels, even at considerable sacrifice of other types of expenditure. At higher income levels, on the other hand, while there is a definite tendency to increase the amounts spent for housing proper, the increases are relatively smaller than those for certain other kinds of expenditure which are stinted or absent entirely at lower incomes.

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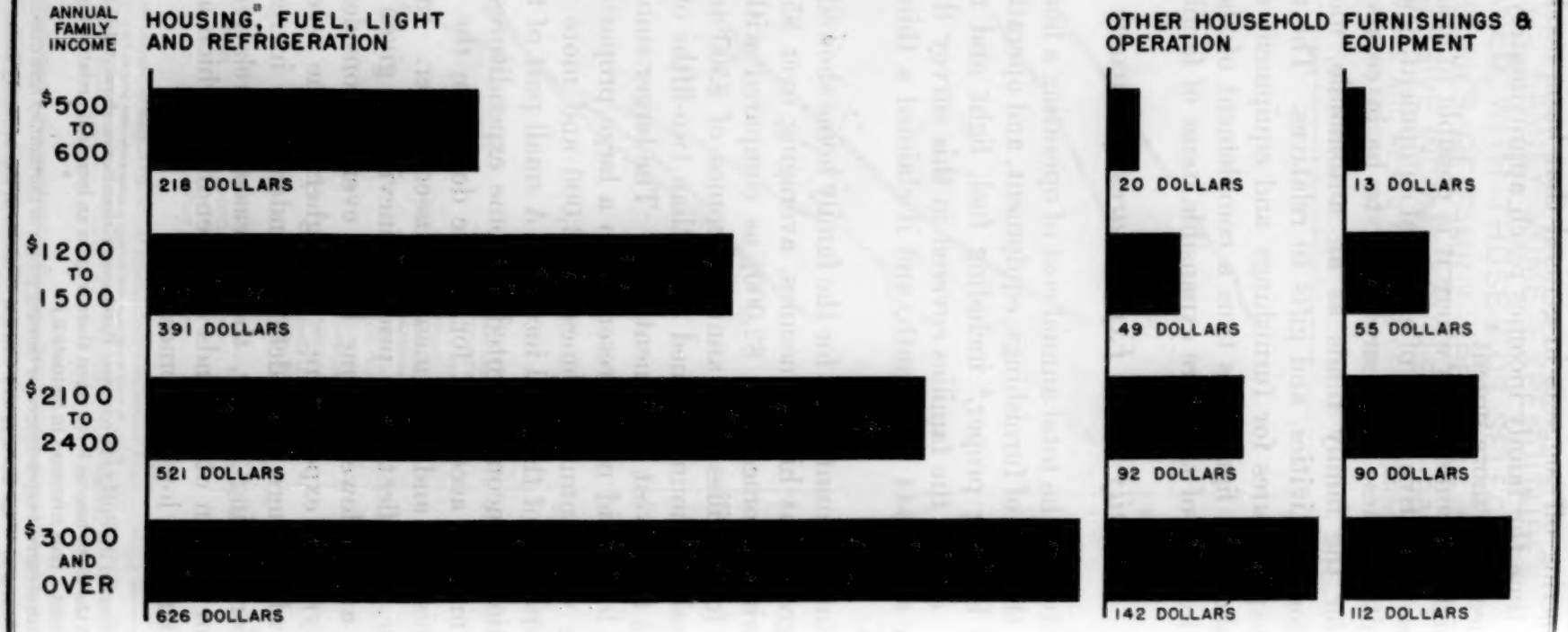
[5] The findings in the Study of Consumer Purchases, Urban Series, showed that this tapering off continues up to about the $5,000 income level, when there is again an increase in relative expenditures for furnishings and equipment. (See references in footnote 3.)

[6] For details of current expenditures for housing proper of the families here discussed see Housing Facilities and Expenditures of Wage Earners and Clerical Workers in the Monthly Labor Review for April 1940.

Fig 3

FAMILY HOME EXPENDITURES AT SELECTED INCOME LEVELS 1934-1936



UNITED STATES BUREAU OF LABOR STATISTICS

*INCLUDING VALUE OF HOUSING RECEIVED IN KIND FROM INVESTMENT IN OWNED HOME

The increase in amount spent per family at higher income levels for the family home is, however, much less sharp when calculated on a per person basis. In the present investigation, a very close relationship was found between number of earners and size of income. Thus families with larger incomes tended to be those with more than one adult earner, generally families with several adults and few children. Taking account of the number of persons sharing the housing provided, it is seen that average amounts spent per capita doubled between the $500 and $1,800 income levels, but thereafter increased little if at all. This compares with a doubling in amounts spent per family from the $500 to the $1,800 income level and a more than tripling of expenditures at the highest income levels.

TABLE 2.—*Annual Family Home Expenditure,*[1] *by Income Level*

[Data cover 12 months within the period 1934–36]

Families with total annual income of—	Average number of persons per family	Average annual home expenditures per family					Average annual home expenditures per person	
		Total expenditure		Value of housing received in kind from investment in owned home	Money expenditure		Total expenditure—amount	Money expenditure[3]—amount
		Amount	Percent of total income[2]		Amount	Percent of total money expenditure[3]		
All families	3.60	$528	33.7	$43	$485	32.1	$147	$135
$500 to $600	3.11	251	43.7	22	229	35.2	81	74
$600 to $900	3.18	331	41.1	28	303	35.6	104	95
$900 to $1,200	3.41	421	38.3	35	386	34.8	123	113
$1,200 to $1,500	3.54	495	35.6	39	456	33.3	140	129
$1,500 to $1,800	3.62	572	33.9	44	528	32.5	158	146
$1,800 to $2,100	3.76	629	31.6	52	577	30.9	167	153
$2,100 to $2,400	4.03	703	30.4	61	642	29.7	174	159
$2,400 to $2,700	4.27	731	28.3	56	675	28.0	171	158
$2,700 to $3,000	4.37	774	26.2	71	703	26.0	177	161
$3,000 and over	4.81	880	24.9	67	813	25.0	183	169

[1] Annual family home expenditure includes the following items: (1) Average annual current housing expenditure, which includes (a) rent paid by tenants, (b) taxes, assessments, interest, refinancing charges, insurance and repairs paid by home owners, but not payments on principal or permanent improvements to owned homes, (c) average annual value of housing received "in kind" from investment in owned home; (2) fuel, light, and refrigeration expenditures whenever these were not included in rental or ownership payments; (3) other household operation expenditures; and (4) purchases of furnishings and equipment.

[2] Treating as income the sum of money income and value of income received "in kind" from investment in owned home.

[3] For these items of home expenditure, as for all other items purchased by the families surveyed, bills incurred during the year but unpaid were treated as money expenditures. Thus taxes due but unpaid are here included as money expenditures. Total amounts obligated for purchases on installment were treated as money expenditures. The amounts owing but unpaid were taken into account in computing the net change in each family's assets and liabilities over the year.

Income, Family Size, and Consumption Level

The type of home a family has is clearly affected not only by the size of its income, but by the number, age, sex, and occupation of the persons for whom that income must provide. The families in this survey were classified therefore by consumption level; that is, by the amount

of the family's total expenditure for the year per family member.[7] With families so classified, the larger families tend in general to fall in the lower consumption levels and the smaller families in the higher levels. Some of the families at the lowest levels were small in size, and had very low incomes. The majority, however, had incomes tending toward the average, and were thus classified because of the large number of persons dependent on those funds. On the average, family incomes were higher at the higher consumption levels.[8]

The average income of the 14,469 families surveyed was $1,524 and of the families at certain consumption levels was as follows:

Families with total annual unit expenditure of:	*Average income*
$200 to $300	$1,187
$500 to $600	1,596
$800 to $900	1,884
$1,100 to $1,200	2,262

The details of expenditures for furnishings and equipment, and for household operation, as well as those for housing proper, available for the families studied, are thus classified by total expenditure per adult equivalent. Differences between the housing expenditures of families at successive consumption levels and at successive income levels are shown by a comparison of table 3 with table 2. Whereas the total home maintenance expenditure per person increased from $81 at the $500 to $600 income level to $177 at the $2,700 to $3,000 level, an increase of 118 percent, the percentage increase from the $200 to $300 to the $1,000 to $1,200 unit expenditure levels was 349 percent.

TABLE 3.—*Annual Family Home Expenditure*[1], *at Selected Consumption Levels*[2]
[Data cover 12 months within the period 1934–36]

Families with total annual unit expenditure of—	Average income per family	Average number of persons per family	Average annual home expenditure per family					Average annual home expenditure per person	
			Total expenditure		Value of housing received in kind from investment in owned home	Money expenditure[4]			
			Amount	Percent of total income[3]		Amount	Percent of total money expenditure[4]	Total expenditure—amount	Money expenditure[4]—amount
All families	$1,524	3.60	$528	33.7	$43	$485	32.1	$147	$135
$200 to $300	1,187	5.19	408	33.1	44	364	31.5	79	70
$500 to $600	1,596	3.13	558	34.0	44	514	32.4	178	164
$800 to $900	1,884	2.38	665	34.5	43	622	32.5	279	261
$1,100 to $1,200	2,262	2.21	784	34.0	47	737	30.2	355	333

[1] See footnote 1, table 2.
[2] See footnote 7, below.
[3] See footnote 2, table 2.
[4] See footnote 3, table 2.

[7] The terms "consumption level" and "economic level" are used to denote classification of families by annual expenditure per unit for the total of all items of family expenditure. The unit used for this purpose is the equivalent adult male. Each member of the family, taking into account age, sex, and activity, is counted as the appropriate decimal equivalent of an adult male. For fuller explanation, see article "Income, Family Size, and Economic Level of the Family," in Monthly Labor Review, January 1940, or Appendix G of Bulletin No. 641.

[8] See Monthly Labor Review, January 1940: Income, Family Size, and the Economic Level of the Family.

It is also notable that the percentage of total money outlay claimed by money expense for home maintenance shows little tendency to decline at the higher consumption levels, as contrasted with the rather notable decline by income levels shown in table 2. This remains true despite the fact that family size is decidedly smaller at higher consumption levels than at higher income levels.[9]

Expenditures at Different Consumption Levels

Attention may now be directed to consideration of the break-down of the family dollar going for furnishings and equipment, and household operation. These data are presented in table 4 for families classified by consumption level.[10]

Electrical equipment, furniture, and textile furnishings, in the order named, vie for the largest part of the furnishing and equipment dollar. Glassware, china, and silverware accounted for less than 3 percent even at the highest consumption level. At the lowest consumption level shown, expense for textile furnishings (principally towels and bedding) exceeded electrical-equipment purchases. Here the necessity for replacement of these indispensable items precluded the purchase of all but relatively inexpensive pieces of electrical equipment. At intermediate consumption levels electrical equipment claimed the largest part, but at the highest level shown in table 4 expenditures for furniture were greater. It is thus clear that the greatest expansibility from low to high consumption levels appears in expenditures for furniture. They were six times as large at the highest consumption level shown in table 4 as at the lowest. Electrical equipment showed almost as great a tendency to increase, with expenditures over five times as great at the high as at the low level.

For all families surveyed the two groups of items which accounted for over half of the total for household operation (other than fuel, light, and refrigeration) were cleaning supplies, and laundry and domestic service. The expenditures for these two items moved in opposite manner, however, from low to high consumption levels. Cleaning supplies bulked very large at the lowest consumption levels, where housewives necessarily did most of their own work. As the pressure on family funds relaxed, the total expenditure for cleaning supplies remained substantially unchanged, but there was a notable increase not only in the amount but in the proportion of the total household operation dollar going for laundry and domestic service.

[9] The small families at the upper consumption levels were comprised mainly of adults, as were the large families at the upper income levels. (Large families at low consumption levels included a considerable number of children not yet in the labor market. The small families at low income levels also contained some children but seldom more than one adult earner.) The small families of adults at the upper consumption levels, living relatively comfortably, apparently found the alternatives to spending of their money on the home less urgent than did larger families of adults with approximately the same family incomes.

[10] See footnote 7, p. 1356.

TABLE 4.—*Expenditures for Main Groups of Furnishings, Equipment and Household Operation* [1] *at Selected Consumption Levels* [2]

[Data cover 12 months within the period 1934–36]

Item	All families	Families with total annual unit expenditure of—				All families	Families with total annual unit expenditure of—			
		$200 to $300	$500 to $600	$800 to $900	$1,100 to $1,200		$200 to $300	$500 to $600	$800 to $900	$1,100 to $1,200
	Average expenditure per family					Percentage distribution of expenditures				
Furnishings and equipment, total	$59.92	$30.14	$63.45	$98.98	$135.25	100.0	100.0	100.0	100.0	100.0
Furniture	16.56	6.96	15.93	30.25	43.72	27.6	23.1	25.1	30.6	32.3
Textile furnishings	13.95	8.66	14.53	19.57	29.91	23.3	28.7	22.9	19.8	22.1
Glassware, china, and silverware	1.21	.57	1.24	1.83	3.72	2.0	1.9	2.0	1.8	2.8
Electrical equipment	18.39	7.23	20.95	32.26	38.63	30.7	24.0	33.0	32.6	28.6
Miscellaneous equipment [3]	9.81	6.72	10.80	15.07	19.27	16.4	22.3	17.0	15.2	14.2
Household operation, total [1]	$58.31	$38.43	$62.44	$86.29	$120.09	100.0	100.0	100.0	100.0	100.0
Water rent [4]	4.84	5.16	4.94	4.63	5.57	8.3	13.4	7.9	5.4	4.6
Telephone	9.98	3.63	11.95	18.37	21.89	17.1	9.5	19.1	21.3	18.2
Laundry and domestic service	15.98	4.95	17.15	32.16	58.78	27.4	12.9	27.5	37.3	49.0
Paper, cleaning supplies, and matches	18.37	18.77	18.54	18.37	17.52	31.5	48.9	29.7	21.3	14.6
Stationery, postage, etc.	3.48	1.86	3.46	4.44	5.01	6.0	4.8	5.5	5.1	4.2
Interest on debts [5]	2.29	1.88	2.37	3.19	3.70	3.9	4.9	3.8	3.7	3.1
Insurance on furniture	1.45	.71	1.67	2.20	4.21	2.5	1.8	2.7	2.5	3.5
Other items	1.92	1.47	2.36	2.93	3.41	3.3	3.8	3.8	3.4	2.8

[1] Excluding fuel, light, and refrigeration.
[2] See footnote 7, p. 1356.
[3] See table 8 for items included.
[4] Includes only water rent paid for separately from dwelling rent or by home owners.
[5] Excluding interest on mortgage, which was treated as expense for housing proper, and carrying charges on installment purchases, which were included as expenditures for the specific items purchased on installment. Since many families borrow money for a variety of purposes, it is very difficult to allocate interest paid on such debts to the particular uses to which the money was put. Therefore, such sums as were reported by the families interviewed have been included here in the total for household operation. They are relatively small in amount and may, if the reader desires, be subtracted from the total for household operation. If such subtraction is made, the percentages shown in the table would, of course, have to be recomputed so that the total expenditure for household operation minus interest on debts would equal 100 percent.

Telephone service was the next greatest kind of household operation expense and showed a strong tendency to increase at higher consumption levels.

Expenditures for Household Operation,[11] *by Consumption Level*

A break-down of items of household operation in greater detail than shown in table 4 is presented in table 5. Full-time domestic service is seen to be very rare among these families of wage earners and clerical workers even at the highest consumption levels. Such as was reported occurred usually in Southern cities and was not necessarily used for the entire year. Part-time service, on the other hand, was a rapidly expanding item reported by as many as a fourth of the families at the highest consumption level shown in table 5. The average payments for service at that level per family spending was $73 a year or about $6 per month.

[11] Excluding fuel, light, and refrigeration.

TABLE 5.—*Expenditures for Selected Items of Household Operation* [1] *at Selected Consumption Levels* [2]

[Data cover 12 months within the period 1934-36]

Item	All families	Families with total annual unit expenditure of—				All families	Families with total annual unit expenditure of—			
		$200 to $300	$500 to $600	$800 to $900	$1,100 to $1,200		$200 to $300	$500 to $600	$800 to $900	$1,100 to $1,200
	Percentage of families spending					Average expenditure per family spending [3]				
Water rent	39.8	42.6	38.9	36.2	34.9	$12.16	$12.11	$12.70	$12.79	$15.96
Telephone	35.9	15.0	42.1	59.1	68.3	27.80	24.20	28.38	31.08	32.05
Domestic service: Full time [4]	2.2	1.1	3.1	3.0	4.4	90.91	31.82	80.32	122.00	167.65
Part time	7.3	2.5	7.1	16.6	24.8	37.81	21.20	35.49	41.87	72.90
Laundry out	31.9	15.2	35.0	54.4	67.7	35.17	26.78	34.69	39.61	49.26
Interest on debts [5]	11.3	11.0	11.3	13.6	11.3	20.27	17.09	20.97	23.46	32.74
Insurance on furniture	19.9	12.8	22.8	28.1	46.2	7.29	5.55	7.32	7.83	9.11

[1] Excluding fuel, light, and refrigeration.
[2] See footnote 7, p. 1356.
[3] Average expenditure per family spending may be converted to average expenditure for all families by multiplying the expenditure in question by the percent of families spending for the item in question at the given consumption level.
[4] The annual figures cannot be divided by 52 to obtain weekly wage rate paid, since the average includes expenditures by families having full-time help for any portion of the year.
[5] See table 4, footnote 5.

Payments for laundry sent out were reported by as many as 15 percent of the families at the lowest consumption level. The amounts spent at that level, about 50 cents per week per family spending, indicate that for some families laundry service was limited to men's collars or shirts. In some cases families sent curtains and blankets just once a year. Other families used "wet wash" service once in several weeks. At the highest consumption level for which data are shown in table 5, however, a much larger proportion of the families reported expense for laundry out and those spending averaged almost $1 per week.

Expense for laundry soaps, starch, and bluing, not presented separately in the table, showed some tendency to be lower at higher consumption levels, a correlative of greater use of laundry services. Outlay for soap flakes and cleaning powders, on the other hand, was somewhat greater at upper levels.

Furniture Expenditure, by Consumption Level [12]

The fact that major items of furnishings and equipment are bought only once a generation by these moderate-income families is confirmed by the data in table 6 on percentage of families spending.[13]

[12] See footnote 7, p. 1356.
[13] The scope of the investigation made it impossible to obtain an inventory of the furnishings and equipment owned by the families surveyed. It is, therefore, not known how many families had the use of any specific item of furniture, while data on repairs are only general and do not indicate kinds of furniture repaired. It is clear that many more families owned and used items of furniture than reported their purchase within the year. An inventory of certain major items of furnishings and equipment owned was obtained in the Study of Consumer Purchases. See Bureau Labor Statistics Bulletin No. 648, vol. IV.

In the furniture line, the highest proportion of families reporting expenditure for an item appears for tables (other than kitchen tables) and for living-room suites, each reported by 5.2 percent. From these figures it may be concluded that once in 20 years is the average frequency for these families to make replacements or additions to their furnishings, once the household has been established.[14] Bedsprings were purchased by 4 percent of the families, or at the rate of once in 25 years per family. Bedroom suites, couches, and daybeds were reported by still smaller percentages of families, as were dining-room suites. Less than 2 percent of the families surveyed reported purchase during a year's period of such items as chiffoniers and chests, dressers, benches and footstools, desks, bookcases and shelves, davenports, and sideboards.

TABLE 6.—*Furniture Expenditures at Selected Consumption Levels* [1]

[Data cover 12 months within the period 1934–36]

Item	All families	Families with total annual unit expenditure of—				All families	Families with total annual unit expenditure of—			
		$200 to $300	$500 to $600	$800 to $900	$1,100 to $1,200		$200 to $300	$500 to $600	$800 to $900	$1,100 to $1,200
	Percent of families spending					Average expenditure per family spending [2]				
Suites: Living room	5.2	3.7	4.8	7.1	10.8	$102.12	$74.05	$101.04	$106.90	$150.46
Bedroom	3.5	1.8	2.8	7.0	7.1	98.57	72.22	113.93	126.43	131.55
Dining room	2.6	1.1	2.6	5.5	3.5	75.00	44.55	69.62	80.55	97.71
Beds: Wood	2.0	1.2	2.2	2.2	3.2	20.00	17.50	20.91	19.09	38.12
Metal	2.7	2.2	2.5	3.0	2.3	15.19	12.73	19.60	15.33	31.74
Cots, cribs: Wood	2.2	1.1	3.7	3.0	1.5	10.91	6.36	10.27	11.67	8.67
Metal	.5	.7	.4	.4	.6	10.00	4.29	12.50	35.00	6.67
Bedsprings	4.0	2.8	3.9	4.5	5.6	12.00	8.93	12.56	14.44	13.04
Davenports	.6	.2	.6	.1	1.0	43.33	25.00	30.00	80.00	133.00
Couches, daybeds	2.6	1.8	2.8	3.6	.7	29.23	26.67	27.86	28.06	12.86
Dressers	1.2	.7	1.5	.8	2.1	14.17	14.29	18.00	13.75	5.71
Chiffoniers, chests	1.5	.7	1.8	1.8	2.1	15.33	11.43	13.33	11.11	20.00
Sideboards, buffets	.3	.1	.1	.7	0	10.00	20.00	30.00	8.57	0
Desks	1.1	.5	1.2	2.8	2.1	19.09	16.00	22.50	31.43	42.38
Bookcases, bookshelves	.8	.2	.9	2.3	.7	8.75	10.00	8.89	5.65	8.57
Tables, except kitchen	5.2	2.0	5.8	10.1	14.7	8.46	4.00	8.28	11.88	13.61
Chairs: Wood	3.6	2.2	3.7	4.1	6.3	7.22	6.82	7.30	9.27	14.29
Upholstered	3.2	1.1	2.8	7.1	9.8	19.38	12.73	18.93	18.59	26.22
Benches, stools, footstools	1.2	.3	1.0	2.2	3.1	3.33	3.33	2.00	4.55	2.26
Tea carts, wheel trays	.1	0	.2	0	.7	10.00	0	10.00	0	14.29
Stands, racks, costumers	1.7	.9	1.8	2.4	6.3	4.12	2.22	3.33	5.00	7.46
Other	5.1	2.4	4.8	8.2	11.9	21.57	15.00	20.42	21.59	23.87

[1] See footnote 7, p. 1356.
[2] See table 5, footnote 3.

There was a clear tendency, however, for expenditures for the less strictly utilitarian items to be reported by a greater proportion of the families at the higher consumption levels. This was the case especially for tables for use elsewhere than in the kitchen, upholstered chairs, suites of furniture, stands, and costumers. Seven percent or

[14] Families which had not been housekeeping for at least 11 months during the year were excluded from the investigation. Consequently, the averages presented in this article do not include the expenditures for furnishings and equipment of families setting up housekeeping.

more of the families at the higher consumption levels purchased living-room and bedroom suites, while less than 1 percent purchased couches or daybeds, 2 percent bought dressers or chiffoniers, and 1 percent bought davenports.

Expenditures for furnishings and equipment in any given year are subject to extremely wide variations from family to family. Since the majority of the items which come under this heading are at least semidurable in nature, families are usually able to adjust the level of their spending to the current family situation with regard to other demands on income. In general, young families in the process of building up their household equipment will spend more for furnishings than will those that have been long established. A family which has established a household may do without any new additions to its stock of goods in a year when its income is reduced or other demands are particularly urgent. Prices which will be paid for a given article also show a very wide range of possibilities; thus a table may cost anywhere from 59 cents to $100 or more, and couches and daybeds may be of inexpensive metal construction or may be expensive heavily upholstered pieces. It is important to bear in mind these variations in expenditures of any one family from year to year, and between two families in the price paid for a given type of article, which explain the irregularity in the averages despite the relatively large numbers of families upon which they are based.[15]

The items of furniture accounting for the largest outlays per family spending were suites of furniture for living rooms, bedrooms, or dining rooms. Davenports and couches came next in size of expenditure. For all of these items, except couches, there was a marked tendency for expenditure to be larger at higher consumption levels. The decline at the highest level in amounts for couches and daybeds per family spending, as well as the very high figure for davenports, are probably explained by chance variation.[16]

Expenditure for Electrical Equipment, by Consumption Level

Electrical equipment ranges all the way from electric-light bulbs, purchased by the majority of families, to electric stoves, ironers, and mangles bought by less than 1 percent of the families surveyed. Light bulbs, items of relatively short durability, were the most frequently reported item. The next most frequently reported item was lamps, purchased by 11 percent of all families surveyed. A much higher proportion at high than at low consumption levels reported purchases of lamps, again confirming the suggestion that this is one item which

[15] For measures showing the relatively high variability in expenditures for furnishings and equipment as compared with those of other types of family expenditures see tabular summary, table 24, in Bureau of Labor Statistics Bulletins Nos. 636, 637 (vols. I and II), 639, 640, and 641.

[16] See footnote 15.

moderate income families replace more frequently than would be absolutely necessary in order to introduce an element of variety in their homes. Families at higher levels also permitted themselves purchases of much more expensive lamps.

It is striking that a higher percentage of all families surveyed reported purchase of electric refrigerators and electric washing machines (see table 7) than of any item of furniture (see table 6). The great contribution of these items to lightening the housewife's tasks and facilitating more pleasant living for the entire family is witnessed by these figures. Expenditures for refrigerators follow the pattern for a luxury item much more than do washing machines. There was a much greater increase in proportion of families reporting purchase of refrigerators at the higher consumption levels. The relatively smaller increase in expenditures for washing machines is explained by greater use of laundry services at higher consumption levels (see table 5).

TABLE 7.—*Expenditures for Electrical Equipment, at Selected Consumption Levels*[1]

[Data cover 12 months within the period 1934–36]

Item	All families	Families with total annual unit expenditure of—				All families	Families with total annual unit expenditure of—			
		$200 to $300	$500 to $600	$800 to $900	$1,100 to $1,200		$200 to $300	$500 to $600	$800 to $900	$1,100 to $1,200
	Percentage of family spending					Average expenditure per family spending[2]				
Vacuum cleaners	4.3	1.7	5.9	8.6	9.1	$44.19	$49.41	$43.89	$45.00	$65.82
Refrigerators (electric)	5.8	1.3	6.8	11.2	12.0	163.62	165.38	164.26	178.57	169.33
Electric stoves, hotplates	.7	.2	.6	1.8	.5	54.29	20.00	65.00	42.22	104.00
Washing machines	5.7	4.8	5.9	5.2	7.8	62.63	57.92	63.39	58.27	63.33
Irons	6.6	6.9	7.2	6.7	11.2	4.09	3.04	4.31	4.48	4.75
Ironers, mangles	.3	0	.4	0	0	43.33	------	42.50	------	------
Heaters, fans	1.7	.6	2.0	3.3	2.1	6.47	6.67	5.50	7.27	7.62
Sewing machines (electric)	1.0	.4	1.1	1.5	1.0	77.00	85.00	57.27	80.67	96.00
Toasters	3.8	1.7	4.4	4.7	8.9	2.37	1.76	2.27	2.98	2.58
Lamps	10.6	4.9	12.6	16.6	26.8	5.94	3.47	5.55	7.41	9.07
Light bulbs	57.6	53.0	59.8	60.8	55.0	1.34	1.09	1.34	1.53	1.73
Other	4.4	1.9	4.8	7.2	12.7	6.36	2.63	5.00	7.64	12.52

[1] See footnote 7, p. 1356.
[2] See table 5, footnote 3.

Electric irons were purchased by about 1 percent more families than bought washing machines. Their primely utilitarian nature is indicated by the failure of the percentage of families purchasing to increase at higher consumption levels.

There was practically no increase in the average outlay per family spending for washing machines and electric refrigerators at higher consumption levels. In purchasing such substantial items, the families tend to pay as much as they think is required to obtain an article of reasonably good durability, and large enough for the family needs, if necessary, extending their payments over a longer period of time.

Expenditures for Textile Furnishings, Silverware, China and Glassware, Etc., by Consumption Level

Expenditures for utilitarian items which must be replaced rather frequently, such as brooms, brushes, mops, towels and sheets, are presented in table 8. Such items, by their nature, are purchased by a relatively large proportion of families and show little tendency to increase at higher consumption levels.

Relatively expensive and more durable items of textile furnishings, tableware, and miscellaneous equipment also appear in table 8. Such items as mattresses, blankets, linoleums, curtains, table porcelain ware, and glassware are purchased with expectation of a longer period of service, and consequently are purchased in any 1 year by a smaller proportion of families. These are items for which expenditures, when made, are fairly substantial, and show some tendency to be greater at higher consumption levels.

Many of the items listed in table 8 contribute more to the amenities of living than to comfort in the physical sense of the term. Expenditures for such items as rugs, inlaid linoleum, silverware, mirrors, pictures, clocks, and ornaments show a clear tendency to be greater per family spending at upper consumption levels. These are the items which are somewhat more likely to receive larger outlays when increased family funds permit some supplementing of barest essentials.

TABLE 8.—*Expenditures for Furnishings and Equipment at Selected Consumption Levels* [1]

[Data cover 12 months within the period 1934–36]

Item	All families	Families with total annual unit expenditure of—				All families	Families with total annual unit expenditure of—			
		$200 to $300	$500 to $600	$800 to $900	$1,100 to $1,200		$200 to $300	$500 to $600	$800 to $900	$1,100 to $1,200
	Percentage of families spending					Average expenditure per family spending [2]				
Textile furnishings										
Carpets, rugs	15.2	11.4	16.9	18.6	27.1	$26.45	$17.46	$26.04	$31.02	$33.28
Linoleum, inlaid	5.7	5.2	5.4	6.9	3.5	11.93	11.35	11.85	15.36	31.43
Felt-base floor coverings	8.7	7.6	8.6	8.6	6.9	8.39	8.82	8.26	7.91	12.17
Mattresses	9.7	9.2	8.7	11.2	11.2	16.80	14.02	15.98	16.07	25.18
Pillows	2.7	1.4	2.7	4.5	2.0	3.33	2.86	2.96	3.56	5.00
Blankets	15.4	14.7	16.1	16.2	14.5	6.10	5.65	6.02	6.48	7.98
Comforts, quilts	3.8	3.1	4.2	5.0	4.8	5.53	4.84	5.48	6.40	8.12
Sheets	29.3	21.6	29.8	33.9	34.3	4.30	3.66	4.40	5.19	6.82
Pillowcases	21.9	16.6	23.3	23.4	25.0	1.87	1.63	1.97	2.14	2.64
Bedspreads, couch covers	10.0	7.2	10.0	12.9	20.6	4.20	3.06	4.30	6.12	8.59
Tablecloths, napkins, doilies: [3]										
Cotton	9.9	8.9	10.1	11.1	10.5	1.92	1.35	2.08	2.70	2.48
Linen	3.0	.9	2.8	5.3	7.4	3.67	1.11	3.21	3.77	2.97
Towels: [3] Linen	6.6	4.3	5.9	7.9	17.6	1.67	1.16	1.69	2.41	2.36
Cotton turkish	31.8	30.6	31.6	35.4	35.3	1.79	1.41	1.99	1.92	3.14
Other cotton	8.3	8.0	8.0	8.9	16.4	1.08	.88	1.25	1.46	1.34
Table runners, dresser scarfs	4.1	2.4	4.8	7.7	12.0	2.20	.83	1.88	2.60	2.00
Curtains, draperies	31.6	21.6	32.5	41.1	57.4	5.95	3.66	6.37	7.83	10.56
Dishcloths, cleaning cloths	19.5	11.7	22.7	30.1	30.3	.62	.43	.62	.66	.63
Other	10.7	9.8	10.4	10.5	13.7	3.74	2.86	4.62	5.33	7.08
Silverware, china, and glassware										
China or porcelain, table	13.9	13.6	12.2	16.2	14.7	$4.60	$2.65	$5.25	$5.74	$13.33
Glassware	16.4	13.5	16.6	17.6	17.9	1.28	.74	1.45	1.88	1.96
Tableware: Silver	3.4	2.2	4.2	4.0	4.9	8.53	3.64	6.67	12.25	28.57
Other	1.0	.8	.8	2.1	1.7	3.00	1.25	5.00	1.90	.59
Other	1.8	1.1	2.1	1.9	.7	2.22	1.82	1.90	2.11	.60
Miscellaneous furnishings and equipment										
Mirrors, pictures, clocks, ornaments	10.9	6.1	10.3	16.1	20.0	$2.75	$1.48	$2.82	$3.54	$5.95
Carpet sweepers	2.9	.7	2.9	5.1	5.5	3.57	4.29	4.83	3.53	4.00
Brooms, brushes, mops	62.1	67.1	58.0	58.5	52.6	1.16	1.15	1.21	1.25	1.33
Dustpans, pails, etc	11.3	12.0	10.3	10.4	8.4	.44	.33	.49	.58	.95
Gas refrigerators	.4	.2	.6	.9	.7	215.00	85.00	211.67	223.33	294.29
Ice boxes	2.7	2.8	2.5	2.0	1.7	18.89	18.21	14.80	26.00	30.00
Stoves and ranges (not electric)	8.4	8.7	7.8	10.0	11.3	46.07	37.70	53.59	55.00	64.87
Canning equipment, cookers	8.6	8.1	8.5	7.6	5.7	2.09	1.73	1.88	3.55	1.23
Pots, pans, cutlery	24.7	20.5	23.5	26.6	23.9	2.47	1.37	2.38	3.27	7.99
Tubs, boards, wringers	5.5	7.4	4.5	5.3	5.2	1.09	1.08	1.11	1.32	1.35
Ironing boards, racks, baskets	4.8	2.9	5.8	6.2	6.6	1.46	1.38	1.55	1.61	1.97
Sewing machines (not electric)	.9	.5	1.0	1.0	0	14.44	12.00	17.00	12.00	------
Baby carriages, gocarts	2.8	2.6	3.9	2.3	3.8	12.86	10.00	13.85	13.48	29.47
Trunks, hand baggage	2.4	1.0	2.1	4.1	2.7	4.17	3.00	3.33	4.15	12.59
Household tools, ladders, cans	5.7	3.9	5.7	8.5	6.2	2.11	1.54	2.11	2.47	5.81
Window shades, wire screens, awnings	15.5	17.0	14.3	16.9	13.0	3.81	2.29	4.06	6.69	8.85
Lawn mowers, garden equipment	5.2	4.5	5.4	5.6	6.5	3.65	2.67	3.52	4.82	4.46
Repairs, cleaning	7.1	3.2	8.1	11.3	9.2	7.89	5.94	8.77	10.80	10.43

[1] See footnote 7, p. 1356.

[2] See table, 5, footnote 3.

[3] The distinctions between textile furnishings of linen and cotton were those reported by the housewives themselves. It is possible that some of the items reported as linen may have been part linen and part cotton. The item linen towels includes dish towels as well as hand towels. The average expenditures for all kinds of towels may be added to obtain total towel expenditures regardless of fiber. The percentages of families spending are not additive, however, since the same family may have reported purchase of more than one kind of towel.

Purchases on the Installment Plan

In the tabulation of data on increases and decreases in installment obligations, separate figures were secured on changes in obligations for automobiles and "other" items. No distinction was made in the tabulations of changes in amounts due on furnishing and equipment as compared with clothing, jewelry, or other articles which families might buy on the installment plan. Inspection of the returns from individual families shows, however, that major items of furnishings and equipment account for the bulk of such installment purchases

TABLE 9.—*Changes in Debts Payable to Firms Selling on Installment Plan for Goods Other Than Automobile, at Selected Consumption Levels* [1]

[Data cover 12 months within the period 1934–36]

Families with total annual unit expenditure of—	Families having net increase in installment obligations		Families having net decrease in installment obligations	
	Percentage of families	Average amount per family having increase [2]	Percentage of families	Average amount per family having decrease [2]
All families	24.3	$74.69	9.5	$77.26
$200 to $300	22.9	49.87	10.3	53.69
$500 to $600	24.4	76.48	9.4	86.38
$800 to $900	25.8	106.82	9.7	100.72
$1,100 to $1,200	22.3	155.70	6.9	94.49

[1] See footnote 7, p. 1356.

[2] Average for all families, whether having increase or decrease, may be computed by multiplying the item in question by the corresponding percentage at the given consumption level.

NOTE.—If a family bought a refrigerator or other item on the installment plan during the year of the study, the entire cost of the refrigerator (purchase price less trade-in, if any, plus carrying charges, if any) was treated as family expenditure. The amounts shown in tables 6 and 7, thus represent total obligations, whether paid or not, for the year. Any balance unpaid at the end of the schedule year was tabulated as increase in obligations to firms selling on the installment plan. Correspondingly, installment payments for items bought during the previous year were tabulated as decrease in obligations to firms selling on the installment plan. These figures, together with those for other debts and investments, were used to compute the net change in the family's assets and liabilities for the year. Expenditures for a refrigerator or other item bought on the installment plan during the year, for which payments were completed before the end of the year, would appear only as an item of equipment expense and would not be tabulated under the heading of increase or decrease in installment obligations.

A general idea of the extent of installment purchase of furnishings and equipment can be gained from table 9. It must be borne in mind that those figures include only increases and decreases in installment obligations on all types of goods bought on installment except automobiles, and that they do not include installment purchases completely paid off during the year. Nevertheless, they do tell a large part of the story of installment sales.

A fourth of the families reported net increases in installment obligations (other than for automobile) for the year, while only a tenth reported net decreases. In times of complete economic stability, it might be expected that some families would be making new commitments and others paying off old ones in about equal proportions,

so that the percentage having net decreases and those having net increases might tend to cancel each other. Even in normal periods, however, the element of secular growth and expanding markets would tend to result in an excess of new commitments over liquidation of old obligations. The disparity in 1934–36, however, is probably greater than would be explained by that factor alone.

A change in marketing practice during the middle 1930's is of importance in explaining the excess of families having increases over those having decreases in obligations.[17] This was the liberalization in installment terms offered by retail firms in 1933, which remained in effect until 1937. A further explanation is the situation in which these families found themselves during the period of the business cycle during which the study was made. The period was one of partial recovery from several years of severe depression and unemployment. All of the families surveyed had succeeded in staying off the relief rolls and all had at least one employed earner and minimum incomes of $500. Such families, many of whom had deferred purchases of all but minimum housekeeping items for several years, were feeling more and more the need of replacements or actual additions to their stock of furnishings and equipment. They were thus likely to decide to undertake such purchases when attractive terms were offered.

The amounts paid off per family with a net decrease in obligations were greater at low consumption levels than the new amounts incurred by families at the same levels having net increases in obligations. This conservatism in the size of new commitments made does not disappear until the higher consumption levels are reached.

[17] The cashing of the soldier's bonus bonds in June 1936 was not an important factor, since the latest month for which data for any family were obtained was May 1936. As the law was enacted in January 1936, a few families may have made commitments in anticipation of receiving additional funds in June.

STATE AND REGIONAL DIFFERENCES IN INCOME PAYMENTS, 1929 TO 1938

PER CAPITA income payments in the United States as a whole fell from $679 in 1929 to $376 in 1933, rose to $566 in 1937, and declined to $515 in 1938. When price changes are considered, the per capita income of 1937 was roughly equivalent in purchasing power to the per capita income of 1929. Variations by States in per capita income payments in 1938 are indicated by the extremes of $205 in Mississippi and $822 in New York. These and related facts on income payments by States are brought out in a recent study by the United States Bureau of Foreign and Domestic Commerce.[1]

There was a significant regional shift in the amount of income per capita between 1929 and 1938. For the country as a whole, per capita income payments in 1938 were 75.8 percent of 1929. In the Southeastern States (Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida), per capita payments in 1938 were 85.8 percent of 1929. In the North Central industrial States (Pennsylvania, Illinois, and Missouri), the per capita income in 1938 was only 68.8 percent of 1929. (See table 1.)

TABLE 1.—*Indexes of Per Capita Income Payments in Major Geographical Areas, 1929–38, and Range of State Payments, 1938* [1]

Area [2]	Indexes of per capita income payments						Range of State per capita income payments in 1938
	1929	1932	1933	1936	1937	1938	
Total continental United States	100.0	58.8	55.4	78.9	83.4	75.8	[3] $205–$822
Northeastern States	100.0	65.5	60.1	77.6	81.1	74.7	[3] 437– 822
North Central—industrial States	100.0	55.3	51.5	72.6	77.1	68.8	434– 599
North Central—industrial and agricultural States	100.0	54.8	51.6	82.6	89.1	78.0	454– 577
North Central—agricultural States	100.0	50.3	53.6	79.1	78.6	74.3	296– 443
Southeastern States	100.0	59.1	58.1	88.4	92.5	85.8	249– 454
South Central States	100.0	54.3	52.2	79.3	84.2	78.8	205– 399
Western States	100.0	59.3	56.8	85.1	90.0	82.9	409– 799

[1] For source, see footnote 1 below.

[2] Northeastern States: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, and District of Columbia. North Central—industrial States: Pennsylvania, Illinois, Missouri. North Central—industrial and agricultural States: Ohio, Indiana, Michigan, Wisconsin, Minnesota. North Central—agricultural States: Iowa, North Dakota, South Dakota, Nebraska, Kansas. Southeastern States: Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida. South Central States: Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, Texas. Western States: Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, Oregon, California.

[3] District of Columbia not included. See text.

[1] U. S. Bureau of Foreign and Domestic Commerce. Survey of Current Business, April 1940, pp. 8–15: Income Payments to Individuals, by States, 1929–38, by John L. Martin. (Reprinted.)

There are wide variations by States in wages and salaries as a percentage of all income payments. In the country as a whole, salaries and wages in 1938 formed 59.1 percent of total income payments. In the North Central industrial States, wages and salaries were 61.6 percent of the total, and in the North Central agricultural States (Iowa, South Dakota, North Dakota, Nebraska, and Kansas), only 48.0 percent. The amount of income paid out in the form of wages and salaries is comparatively large in the more highly organized and industrialized regions, and comparatively small in the agricultural regions, especially in areas of small farms where farm operators do a large proportion of their own work. In the latter type of areas, entrepreneurial withdrawals are exceptionally large. (See table 2.)

TABLE 2.—*Percentage Distribution of National Income Payments in Major Geographical Areas by Type of Payment, 1938* [1]

Area [2]	Salaries and wages	Other labor income	Entrepreneurial withdrawals	Dividends, interest, etc.
Total continental United States	59.1	7.0	17.6	16.1
Northeastern States	60.7	6.5	12.1	20.7
North Central—industrial States	61.6	7.9	14.1	16.4
North Central—industrial and agricultural States	61.4	8.4	17.2	13.0
North Central—agricultural States	48.0	7.4	34.6	10.0
Southeastern States	58.9	6.7	22.4	12.0
South Central States	53.0	7.2	26.5	13.3
Western States	57.6	7.2	20.0	15.2

[1] For source, see footnote 1, p. 1367.
[2] For States included in each area, see table 1, footnote 2.

In all States, wages and salaries combined formed the largest item of income payments, but the proportion varied widely. On the one extreme, in three States, more than 65 percent of total payments were received as wages and salaries; and on the other extreme, the residents of seven States derived less than 50 percent of their income from wages and salaries. (See table 3.)

In addition to wages and salaries, there is a type of income described as "other labor income" (tables 2 and 3). Under this heading, the Bureau of Foreign and Domestic Commerce of the United States Department of Commerce, in its studies of national income, includes "pension payments to individuals under independent plans sponsored by private employers, compensation payments to individuals on account of industrial injuries, adjusted service certificate disbursements, direct relief payments, benefits under social-security programs, and similar items." A considerable part of "other labor income" has consisted, therefore, of payments to others than wage earners and salaried workers. Entrepreneurial withdrawals consist of "sums taken by self-employed individuals who are owners and operators of unincorporated enterprises. These withdrawals include the earnings

of the individual for his labor and management, as well as return on invested capital." Entrepreneurial withdrawals are mainly in farming and the service professions.

TABLE 3.—*Income Payments by Type of Payment and by States, 1929–38* [1]

[In millions of dollars]

Type of payment	1929	1932	1933	1937	1938	1929	1932	1933	1937	1938
	Alabama					Arizona				
Total	848	423	393	708	659	257	136	132	242	227
Salaries and wages	511	264	251	414	376	173	93	83	146	130
Other labor income	13	21	30	43	57	5	7	11	18	22
Entrepreneurial withdrawals	246	97	74	187	169	52	22	25	51	51
Dividends, interest, etc	78	41	38	64	57	27	14	13	27	24
	Arkansas					California				
Total	555	298	275	465	450	5,406	3,506	3,326	5,317	4,956
Salaries and wages	290	153	144	208	198	3,222	2,117	1,920	2,957	2,826
Other labor income	15	30	27	42	46	66	107	132	260	311
Entrepreneurial withdrawals	201	92	80	174	170	930	587	623	1,038	909
Dividends, interest, etc	49	23	24	41	36	1,188	695	651	1,062	910
	Colorado					Connecticut				
Total	642	393	383	629	572	1,473	951	907	1,382	1,218
Salaries and wages	385	240	215	321	300	968	566	547	867	754
Other labor income	11	17	23	51	53	14	22	29	48	68
Entrepreneurial withdrawals	146	68	86	157	135	129	87	83	128	122
Dividends, interest, etc	100	68	59	100	84	362	276	248	339	274
	Delaware					District of Columbia				
Total	253	158	152	233	198	624	550	486	776	760
Salaries and wages	134	87	82	107	95	442	390	335	546	543
Other labor income	2	3	5	5	6	11	17	19	30	34
Entrepreneurial withdrawals	23	14	12	25	24	61	46	43	61	61
Dividends, interest, etc	94	54	53	96	73	110	97	89	139	122
	Florida					Georgia				
Total	737	475	447	813	773	965	564	556	914	870
Salaries and wages	453	287	260	436	427	595	366	354	536	505
Other labor income	11	17	27	41	52	15	23	30	47	59
Entrepreneurial withdrawals	146	95	91	165	150	262	110	110	223	216
Dividends, interest, etc	127	76	69	171	144	93	65	62	108	90
	Idaho					Illinois				
Total	237	124	135	246	220	6,716	3,542	3,326	5,260	4,747
Salaries and wages	134	77	69	123	118	4,536	2,338	2,130	3,305	2,948
Other labor income	3	8	9	14	16	71	143	169	270	317
Entrepreneurial withdrawals	84	30	49	92	71	868	463	528	777	715
Dividends, interest, etc	16	9	8	17	15	1,241	598	499	908	767

[1] For source, see footnote 1, p. 1367.

TABLE 3.—*Income Payments by Type of Payment and by States, 1929–38*—Continued

Type of payment	1929	1932	1933	1937	1938	1929	1932	1933	1937	1938
	Indiana					Iowa				
Total	1,896	1,050	1,027	1,782	1,584	1,366	714	752	1,144	1,136
Salaries and wages	1,306	682	648	1,134	953	677	438	377	529	513
Other labor income	33	53	56	95	139	19	29	34	54	65
Entrepreneurial withdrawals	340	180	204	353	319	513	157	268	442	453
Dividends, interest, etc	217	135	119	200	173	157	90	73	119	105
	Kansas					Kentucky				
Total	1,032	557	557	847	771	961	568	522	893	830
Salaries and wages	534	335	298	408	399	560	322	308	473	441
Other labor income	19	24	29	48	51	18	31	36	57	62
Entrepreneurial withdrawals	350	131	169	278	219	256	131	101	255	234
Dividends, interest, etc	129	67	61	113	102	127	84	77	108	93
	Louisiana					Maine				
Total	864	526	498	811	807	463	320	310	429	389
Salaries and wages	531	327	306	467	464	285	192	184	256	231
Other labor income	13	26	34	46	57	9	13	15	19	27
Entrepreneurial withdrawals	196	92	91	169	172	84	47	49	77	65
Dividends, interest, etc	124	81	67	129	114	85	68	62	77	66
	Maryland					Massachusetts				
Total	1,112	783	732	1,092	999	3,681	2,606	2,389	3,148	2,906
Salaries and wages	706	463	429	661	608	2,409	1,547	1,423	1,933	1,765
Other labor income	13	23	28	42	53	52	98	110	183	140
Entrepreneurial withdrawals	136	88	91	142	129	345	238	219	306	293
Dividends, interest, etc	257	209	184	247	209	875	723	637	726	608
	Michigan					Minnesota				
Total	3,610	1,903	1,665	3,355	2,808	1,461	904	879	1,417	1,356
Salaries and wages	2,498	1,313	1,155	2,346	1,824	857	578	511	770	745
Other labor income	40	77	92	123	243	20	34	41	99	119
Entrepreneurial withdrawals	436	246	242	447	375	390	162	211	378	346
Dividends, interest, etc	636	267	176	439	366	194	130	116	170	146
	Mississippi					Missouri				
Total	535	263	253	435	417	2,228	1,370	1,289	1,865	1,741
Salaries and wages	257	140	126	191	178	1,420	869	785	1,084	1,028
Other labor income	9	17	21	36	39	30	48	52	104	122
Entrepreneurial withdrawals	223	83	86	172	167	453	231	257	377	339
Dividends, interest, etc	46	23	20	36	33	325	222	195	300	252
	Montana					Nebraska				
Total	350	173	183	327	282	789	408	451	601	546
Salaries and wages	213	118	105	185	164	370	248	218	279	273
Other labor income	5	8	12	26	30	10	14	15	40	43
Entrepreneurial withdrawals	101	29	49	89	64	316	95	171	217	173
Dividends, interest, etc	31	18	17	27	24	93	51	47	65	57

TABLE 3.—*Income Payments by Type of Payment and by States, 1929–38*—Continued

Type of payment	1929	1932	1933	1937	1938	1929	1932	1933	1937	1938
	Nevada					New Hampshire				
Total	78	51	49	91	82	304	207	202	275	256
Salaries and wages	51	37	32	56	53	206	127	126	168	154
Other labor income	1	1	2	4	4	5	7	8	14	18
Entrepreneurial withdrawals	17	6	9	16	13	36	23	22	34	33
Dividends, interest, etc	9	7	6	15	12	57	50	46	59	51
	New Jersey					New Mexico				
Total	3,254	2,235	2,013	2,812	2,604	162	97	101	181	173
Salaries and wages	2,173	1,380	1,219	1,766	1,638	93	63	59	93	89
Other labor income	34	55	73	142	162	3	5	6	15	16
Entrepreneurial withdrawals	366	245	238	332	325	52	19	27	55	52
Dividends, interest, etc	681	555	483	572	479	14	10	9	18	16
	New York					North Carolina				
Total	14,038	9,176	8,502	11,515	10,684	992	589	637	1,063	994
Salaries and wages	8,766	5,386	4,875	6,766	6,361	595	367	376	583	556
Other labor income	145	246	349	589	675	11	21	29	40	56
Entrepreneurial withdrawals	1,711	1,060	993	1,445	1,376	283	128	157	313	275
Dividends, interest, etc	3,416	2,484	2,285	2,715	2,272	103	73	75	127	107
	North Dakota					Ohio				
Total	300	126	149	234	210	4,940	2,751	2,653	4,468	3,902
Salaries and wages	135	86	74	97	97	3,474	1,811	1,750	2,929	2,449
Other labor income	4	7	8	28	26	71	99	142	227	310
Entrepreneurial withdrawals	145	21	56	96	75	614	353	353	641	568
Dividends, interest, etc	16	12	11	13	12	781	488	408	671	575
	Oklahoma					Oregon				
Total	1,098	556	569	867	808	637	370	351	614	574
Salaries and wages	613	331	304	422	398	411	244	222	375	357
Other labor income	15	36	35	70	74	9	15	20	33	42
Entrepreneurial withdrawals	313	117	159	237	212	151	71	70	145	122
Dividends, interest, etc	157	72	71	138	124	66	40	39	61	53
	Pennsylvania					Rhode Island				
Total	7,177	4,258	3,999	6,092	5,358	573	394	365	494	448
Salaries and wages	4,906	2,744	2,556	3,950	3,322	389	231	223	314	278
Other labor income	82	114	191	366	493	8	19	13	24	37
Entrepreneurial withdrawals	763	453	416	677	621	48	32	29	42	39
Dividends, interest, etc	1,426	947	836	1,099	922	128	112	100	114	94
	South Carolina					South Dakota				
Total	475	282	301	499	471	315	135	159	227	228
Salaries and wages	287	186	189	294	275	134	91	79	103	106
Other labor income	7	11	23	31	39	4	7	12	29	29
Entrepreneurial withdrawals	149	61	65	135	122	157	24	56	80	80
Dividends, interest, etc	32	24	24	39	35	20	13	12	15	13

TABLE 3.—*Income Payments by Type of Payment and by States, 1929–38*—Continued

Type of payment	1929	1932	1933	1937	1938	1929	1932	1933	1937	1938
	Tennessee					Texas				
Total	916	522	505	880	819	2,672	1,587	1,585	2,637	2,491
Salaries and wages	571	326	327	524	485	1,494	947	863	1,331	1,319
Other labor income	16	28	29	46	58	32	55	69	122	132
Entrepreneurial withdrawals	229	108	92	213	194	750	349	418	698	612
Dividends, interest, etc.	100	60	57	97	82	396	236	235	486	428
	Utah					Vermont				
Total	280	157	158	259	246	217	141	132	181	169
Salaries and wages	184	104	95	158	147	129	79	73	104	94
Other labor income	3	6	11	17	23	3	5	6	8	11
Entrepreneurial withdrawals	61	26	33	56	51	48	28	27	38	36
Dividends, interest, etc.	32	21	19	28	25	37	29	26	31	28
	Virginia					Washington				
Total	994	672	622	1,001	952	1,130	650	626	1,032	993
Salaries and wages	645	433	406	606	583	749	432	392	635	618
Other labor income	14	22	25	42	49	15	25	35	66	80
Entrepreneurial withdrawals	227	126	107	210	198	220	113	125	203	182
Dividends, interest, etc.	108	91	84	143	122	146	80	74	128	113
	West Virginia					Wisconsin				
Total	792	472	464	768	687	1,906	1,061	1,010	1,664	1,519
Salaries and wages	582	335	331	528	450	1,197	661	599	983	893
Other labor income	10	16	32	43	61	24	44	64	98	123
Entrepreneurial withdrawals	114	67	54	112	105	411	184	205	364	317
Dividends, interest, etc.	86	54	47	85	71	274	172	142	219	186
	Wyoming									
Total	156	91	94	150	141	------	------	------	------	------
Salaries and wages	98	60	53	79	78	------	------	------	------	------
Other labor income	2	3	4	10	9	------	------	------	------	------
Entrepreneurial withdrawals	44	19	27	46	41	------	------	------	------	------
Dividends, interest, etc.	12	9	10	15	13	------	------	------	------	------

The Bureau of Foreign and Domestic Commerce points out that per capita income is derived by dividing an estimate of total income payments by an estimate of population and that some margin of error must be recognized because of the limitations of the available sources of information. Bias occurs in some instances from the necessary assignment of wage and salary income to the State in which the payments are made. Computed per capita incomes for the District of Columbia, for example, are much larger than actual per capita incomes because of the high proportion of persons who work in Washington, D. C., but live in Virginia or Maryland. The average income of those States is computed at too low a level, although the bias in the State figures is smaller than in the District of Columbia figures because of the larger population of Virginia and Maryland.

Wartime Emergency Controls

WARTIME REQUISITIONING OF WOMAN WORKERS IN FRANCE [1]

IN ORDER to release male labor for national defense, employment of female labor has been made obligatory in certain professions, government offices, and enterprises in France. Under the terms of the decree of February 28, 1940, adopted for the purpose of increasing the production facilities of France, the Ministry of Labor will fix the proportion of female labor to be employed. The provisions of the decree are shown below. In promulgating this order the President of the French Republic considered the law of July 11, 1938, and that of December 8, 1939, amending article 36 of the law of July 11, 1938, all of which concern the organization of France in time of war.

Female employment.—For the duration of hostilities, the employment of female labor is to be made obligatory by the Minister of Labor in certain professions, government offices, and enterprises.

The professions, government offices, or enterprises, and the proportion of female labor, which they must employ in each category of work, are to be fixed by a decree of the Ministry of Labor.

In types of employment where at least 50 percent female labor is required, no special assignment of a mobilized man can be made without the approval of the regional commission of supervision of special assignments of mobilized men. Special assignments already granted must be reexamined.

Male labor which is freed under the terms of this decree is to be assigned to the firms and enterprises working for national defense or working in the interests of France. Priority in receiving this labor is given to the Ministries of Armament, Air, and Marine. The laborers involved have the right to seek any other available employment as long as they have not been the subject of an order of requisition.

The Minister of Labor is empowered to establish the regulations according to which male laborers are to be made available after examination of their physical condition and after having considered their age and family situation.

Persons deprived of their employment by the application of this decree will be returned to their employment after the termination of

[1] Report of Robert D. Murphy, chargé d'affaires ad interim, American Embassy at Paris.

hostilities under the same conditions as men who were mobilized or who were requisitioned in accordance with the decree of April 21, 1939.

Census of female labor.—Provision was made for a voluntary census within 2 months, showing the female labor available. Women and girls desiring employment are to execute a declaration in accordance with the conditions established by a decree of the Minister of Labor. The results of this census are to be centralized in the Ministry of Labor. Each applicant must undergo medical examination before being entered on the register of available labor.

Applications are to be granted in accordance with a system of priority to be established by a decree of the Minister of Labor, taking into consideration the family situation of the interested persons and, with respect to married women, the military situation of their husbands. The Ministry of Labor is also made responsible for establishing centers for the rapid training of female labor.

In case the needs for female labor should exceed the voluntary applications, a decree, countersigned by the Minister of Labor, is to prescribe an obligatory census of all available female labor. The women and girls thus listed and considered suitable can be made the subject of individual requisitions under conditions which will be fixed by a decree countersigned by the President of the Council of Ministers and by the Minister of Labor.

LABOR POLICY IN GERMANY

THE strict wartime labor policy of the German Government began with the invasion of Poland by the German army on September 1, 1939. A decree establishing a complete war economy was issued on September 3, 1939.[1] The economy is characterized by the German authorities by the term "compulsory or forced war economy" (*Kriegsverpflichteten Wirtschaft*)—a sort of State capitalism.

The provisions of the decree which related to labor conditions were very stringent, including lowering of wages, increase of working hours, in some cases even up to 16 a day, attachment of workers to their employers, deprivation of freedom, not only of movement but also of speech and even of thinking independently from the so-called "ideology" of State capitalism.

Production began to fall off rapidly, accompanied by such an alarming increase of industrial accidents and stoppages as to attract the serious attention of the Government authorities. How much the loss of efficiency and the increase of industrial accidents were due to

[1] This review is based upon data contained in a report by the German Government entitled, "Six Months of the War Social Policy" published in the Reichsarbeitsblatt for March 5, 1940; an article relating to the German price policy in the Weekly Report of the German Institute for Business Research for March 13, 1940; and earlier articles published in the Monthly Labor Review.

intentional sabotage by the workers, how much to their exhaustion from speeding up and undernourishment, and how much to the worn-out industrial machinery for production of consumers' goods, no information is available. The Government applied the sternest measures against the suspected saboteurs, but also began to lighten somewhat the hard labor conditions prescribed by the above decree and applied by the Minister of Labor and the labor trustees under him.

The decree of forced war economy dealt first of all with the problem of employment as based upon a service obligation (*Dienstverpflichtung*). The workers were prohibited from quitting their jobs and the employers were prohibited from dismissing their workers without permission of the Government. Both the workers and employers were prohibited from making demands for changes in the prescribed social relationship. They were permitted, however, to give advice for the purpose of increasing the productivity of labor. If for any unavoidable reason, such as lack of raw materials or fuel, or any other cause connected with the prosecution of the war, employers were compelled to dismiss some of their workers, they were commanded to report such prospective dismissal to the Government without delay, in order that the State labor office could assign the dismissed workers to new jobs in some other enterprise. The employees were also obliged to report their availability to the local labor offices. The term of a dismissal notice was extended in most industries to 3 months, so that a worker would be expected to know 3 months ahead whether he had to quit his job for another and an employer, whether he would have enough orders to keep full labor forces.

Although the legal attachment of workers to their employers—forced labor— still remained in effect, the Government later promised to investigate each case "thoroughly and impartially," and to decide, from the point of view of the "Fatherland's interest," whether to permit the change of jobs or workers. This promise was to ease the hardship of forced labor.

Wage rates were lowered at the beginning of the war. Overtime, Sunday, and holiday earnings were to be paid into the State treasury for helping to finance the war. The subsequent wage regulations, notably those of February 17, 1940, provided that these earnings were to be paid to the workers themselves, as before the war. The State and local labor offices were authorized to grant relief payment to the workers whose earnings appeared to be insufficient to cover the minimum cost of living, especially as to rent when they were not living in factory barracks.

The daily labor hours were extended to 10 and in some industries even to 16, while in some other industries no fixed labor hours were designated. It was merely stated that the labor hours depended

upon the needs of production, so that it was impossible to decide when regular labor hours ended and overtime began. The subsequent regulations defined more clearly the labor hours, usually at 10, so that the eleventh hour was counted as overtime. The local labor offices were also authorized to prescribed shorter hours in cases of heavy work. The former regular 8-hour labor day was left in effect merely "in principle."

By the September 1939 decree paid vacation periods were prohibited, but later regulations, especially the decree of January 15, 1940, restored these vacations to workers for certain periods and under certain limitations, in order to afford workers an opportunity to recuperate from exhaustive toil.

The prescribed food rations were found not to be sufficient for the workers engaged in heavy work or night work, and therefore their rations were somewhat increased.

There have been other minor improvements of late, such as a small increase in invalidity and sickness insurance benefits to those dependents whose breadwinners have been conscripted either as soldiers for the war front or as "soldiers" for the home front in the distant factories and workplaces.

While the Government has been comparatively successful in its policy of "wage stoppage" (*Lohnstop*), as is shown by the fact that the wartime wages are lower than the prewar or peacetime wages were, it has failed in its policy of "price stoppage" (*Preisstop*), for the present wartime prices of necessities are considerably higher than the prewar prices were.

The failure in pegging the prices of necessities to a stable level is explained by the German authorities as caused by a number of adverse factors, such as scarcity of consumers' goods resulting from wartime dislocation of industries, shifting to armament and ammunition production, lack of raw materials and higher prices of materials which are imported from abroad, and the drafting of a considerable number of the skilled workers for direct war service.

ORGANIZATION OF EMPLOYMENT IN JAPAN

REGULAR inquiries into the situation in the employment market of Japan are to be made, in accordance with an order promulgated by the Japanese Minister of Social Welfare on November 28, 1939.[1] This order is based on an act of April 12, 1929, which conferred upon the Government the power to require reports from individuals or corporations of such data as it might consider essential for preparation of estimates of available human and material resources. Under the

[1] International Labor Office. Industrial and Labor Information, Geneva, April 1, 1940.

order referred to, all employers or their representatives are required to make to the local authorities two statements annually, one at the end of June and the other at the end of December. These statements must show, on prescribed forms, the actual number of workers employed, estimates of future vacancies, the number of discharges, and other details.

The local authorities are to send these statements to the employment exchanges for their information and, when they are returned, are to classify them and present the findings to the Ministry of Social Welfare. The Ministry may call upon employers for any additional data that may be regarded as necessary. The order is not applicable to prefectural or State establishments, doctors, veterinarians, apothecaries, seamen, persons under 12 or over 60 years of age, office clerks whose salaries exceed 100 yen per month, or any other individuals designated by the Ministry of Social Welfare.

The Labor Gazette of the Ministry of Social Welfare states that the purpose of the order is to secure the information necessary for insuring a proper distribution of the available labor supply in the munitions and other industries, and that it will be applied not only to workers in mines and factories, but also to salaried employees in commercial establishments and to domestic servants. Attention is called to the fact that the present swift changes in the employment market necessitate the making of the proposed inquiries every 6 months; and to the need for securing full details as to each worker's sex, age, career, etc., as well as the actual labor requirements of the employers, so that arrangements may be made when necessary for transfer of workers from one factory or one branch of industry to another.

The results of these inquiries are to be made available not only to officials of the central Government, but also to the local authorities whose duty it is to apply particular regulations.

GOVERNMENT CONTROL OF PORT ACTIVITY IN AUCKLAND, NEW ZEALAND

THE New Zealand Government assumed control of all port activity in Auckland, including the employment and pay offices, when employees engaged in loading ship cargoes failed to reach an agreement with their employers, to settle a strike called in March 1940.[1] This is the first case in which waterside workers discontinued work in Auckland since the war began.

The strike began on March 7, when the local union determined to stop work at 5 p. m. and to refuse overtime employment. Certain matters had been in dispute between employers and employees for

[1] Data are from a report of J. G. Groeninger, American consul at Auckland.

some time, and a Government committee assigned to investigate the differences was expected to deliver a report in the near future. Union workers, however, were not satisfied with the progress and demanded that the shipowners negotiate a new agreement with them.

Employers maintained that ships should sail with the least possible delay under the special conditions resulting from the war situation. They offered a system of piece-rate wage payment plus a bonus for speed in handling cargo, and were willing to discuss any scheme presented for improving the position of waterfront labor. They were unwilling to grant a wage increase, stating that this question was in the hands of the Arbitration Court and that employers were not responsible for any delay in a hearing on the subject by the Court.

A special session of the Cabinet met in Wellington to deal with the strike. After inquiring as to the intentions of the local union and being told that the men had not changed their position, the Government asked the Auckland branch to show reason why it should not be deregistered. Later the employers dismissed the men who had previously refused to work overtime.

It was then decided by the employers that if the dispute were not settled by March 11, they would exercise their power to hire volunteer labor to load the vessels. When the deadlock continued on the date set for resuming work, the Government announced that it had taken over the docks and would see that shipping was handled without delay. The waterside workers later agreed to return to work. This decision was practically unanimous and was based on the grounds that labor would be employed by the State and not the shipowners and operators. No statement was made as to how soon a reorganization could be expected, but pending such time waterside workers were made subject to the control of the Port Controller, appointed by the Government.

Employment and Labor Conditions

DICTIONARY OF OCCUPATIONAL TITLES

THE Dictionary of Occupational Titles,[1] which defines 29,744 job titles applied to 17,482 different jobs in farms, mines, factories, businesses, and homes in the United States, was issued early in May 1940. The dictionary is the last major result of 5 years of occupational research by the United States Employment Service as an agency of the Department of Labor. That service now constitutes a part of the Bureau of Employment Security in the Social Security Board. The program for occupational research, which included the preparation of the dictionary, was directed by William H. Stead.

This dictionary of occupations gives an unprecedented amount of data concerning jobs—what they are, where they are, and how they are performed. The material on which the volume is based was gathered from approximately 55,000 job-analysis schedules in 15 States from New England to California. These materials were prepared with the cooperation of 6,500 individual employers and business establishments, and the information was checked for accuracy by numerous labor unions, trade associations, and professional societies.

In addition to the job title or titles each definition includes an "industrial designation," indicating the type of business or industry with which the job is associated, an occupational code number identifying the job for statistical and other uses by public employment offices, and a digest of the duties and responsibilities of the job.

Some of the job titles defined in the dictionary may appear rather odd to those unfamiliar with their use. A *cat skinner*, for example, is the operator of a tractor. A *pulpit man* works in a steel mill charging and discharging a furnace, rather than in a church as might be assumed. A *screen ape* is not necessarily employed in motion pictures, for he works in a coal-mine, screening coal. A *zoogler* is a real job title—in New England it denotes the job of loading and unloading sleds or drays used to skid logs.

The same title is frequently used on jobs in different industries. In illustration, a *metal man* may take out dents in automobile bodies or remelt printer's type metal to be used again. A *bulldozer operator* may drive a tractor-like grading machine, bend or shape metal on a

[1] U. S. Department of Labor. United States Employment Service. Dictionary of Occupational Titles. (In 3 parts.) Washington, June 1939.

forging press, or form heads on rivets in structural-steel work. A *modeler* may cut vamps and tops from hides and skins or model plaster-of-paris designs to use in making decorative tile.

An *oven tender* may bake the enamel on painted parts of automobile bodies, dry freshly sprayed hats, assist in loading tobacco-drying ovens, or tend bread- and cake-baking ovens. An *underwriter* may apply premium rates to various types of insurance or glue labels on bundles of roofing material. A *wheelman* may steer a fishing boat, or buff automobile body parts prior to painting, or press residual oleo oil from oleo stock in manufacturing butter substitutes.

The occupational dictionary was prepared mainly for public employment offices to facilitate the classification of applicants and their referral to appropriate openings. It will, however, probably be helpful to workers in industrial-personnel and vocational-guidance fields and other persons interested in labor and occupations.

ECONOMIC EFFECTS OF SHUT-DOWN OF AMOSKEAG TEXTILE MILLS

FOR more than a century prior to 1935 the Amoskeag Manufacturing Co. had been operating in Manchester and at one time employed over 16,000 workers. The decision to close the mills was made in April 1935 and by September of that year the mills were shut down. In July 1936 a special master of the bankruptcy court recommended the company's liquidation and within the next 2 months the entire property was sold.

In 1930 the number of gainful workers in Manchester's population of 75,000 was 35,000. Slightly over 11,000 were employed by the Amoskeag Mills in the week of peak employment in 1935. In the face of this very large proportion of workers on the pay rolls of these mills the shut-down was a major calamity for the community.

A study recently made under the auspices of the WPA analyzes the reasons for and the social consequences of the Amoskeag shut-down, with particular reference to the efforts made to utilize the plant and equipment for other manufacturing enterprises.[1]

The general situation is summarized as follows:

> The social consequences of the shut-down can be measured in terms of wide spread unemployment of a relatively long duration and dependency upon emergency Government employment and general relief. In a sample of more than a thousand Amoskeag workers made idle by the shut-down in 1935, only two-fifths of the men and one-fifth of the women were able to find some private employment within the 22 months following loss of job at the time of the closing of the mills but before the location of new companies in the Amoskeag yard.

[1] U. S. Work Projects Administration. Labor and the Shut-Down of the Amoskeag Textile Mills, by Samuel Creamer and Charles W. Coulter. Philadelphia, 1939. (National Research Project on Reemployment Opportunities and Recent Changes in Industrial Techniques, Report No. L–5.)

The great majority of the new companies which came to Manchester began to operate in the first 6 months of 1937 and at the peak of employment in the summer of that year had 3,100 workers on their pay rolls. In the recession which followed, approximately 50 percent of this number lost their jobs.

The economic prospects of Manchester are clearly dependent on the coming in of new companies and the growth of industries already in operation in that locality. The latter are at present restricted chiefly to the boot and shoe industry. The problem of this community as of other depressed textile towns involves the economics of industrial location.

General Locational Considerations

It is obvious that industries for which raw materials are a very important consideration will not be attracted to Manchester, as that section of the country has practically no materials of this character. The forests in the Northern part of the State and in nearby Canada constitute a possible exception. However, the woodworking industries in general have been on the decline for over 10 years. Furthermore, the forests near Manchester are not very large.

Although Manchester is probably an advantageous distribution point for northern New England, this market, the report points out, is not extensive enough to support industries of substantial size. Manchester is only 56 miles from Boston, which is an outstanding marketing center, but from the point of view of transportation expenses a plant location in the southern part of New England is to be preferred. There an undertaking would not only have the advantage of the Boston market but also that of southern New England and that of the New York City-Philadelphia section. In addition to its natural transportation drawbacks because of distance from certain important markets, Manchester is also handicapped by low traffic volume and its uneven character, resulting from the larger amount of incoming than of outgoing freight. These are especially significant conditions, as they bring about a higher cost of living in a community like Manchester which imports a great portion of its food and fuel. However, some cities have made industrial progress notwithstanding their distance from the principal marketing centers and lack of raw materials. Buffalo, N. Y., is cited as an example of such development. Cities of this class are, as a rule, located at natural "breaking points" on one of the major through railway lines. Since such a location requires the rehandling of freight, it is more economical to "mill in transit."

With dependence wholly upon the northern New England market, Manchester would probably never have become a city of its present size. Capital and labor, however, are not perfectly mobile. Accord-

ing to a study of the new companies establishing themselves in Manchester in 1937 and 1938, the most powerful factor influencing the choice of location was the smallness of the investment required for capital equipment and plant.

Except for the rayon plant, all the other new textile undertakings were started in Amoskeag because of the second-hand machinery available in that location, together with the desire of certain companies to increase production. However, when the textile machinery is sold, Manchester will offer much less inducement as a location for other textile plants. At the close of 1938 the remaining cotton machinery was found to be inadequate to equip to economic advantage a unit of any substantial size, although enough machinery was available to equip a moderate-sized worsted unit.

Amoskeag's specialized equipment—for example, the foundry, dyeing, and part of the finishing equipment—was already being utilized by that time. Within 2 years, therefore, this drawing power of low capital costs had apparently spent itself, notwithstanding the fact that over 3,000,000 square feet of mill space at cheap rentals were still vacant. At the same time it should be noted that the liquidation of textile companies in other towns of New England also had lowered rents in those localities.

From the results of the survey, the report concludes that the establishment of new enterprises in Manchester after 1938 would depend greatly upon relatively low labor costs as compared with other possible locations. Furthermore, the skills prevailing in Manchester are those used in the textile and shoe industries, and, therefore, this community would not have any drawing power for industries requiring highly-skilled employees. Industries which might locate there would probably be those in which labor cost constitutes a heavy proportion of total costs because of the considerable processing by unskilled and semiskilled workers.

Industries of that description include textile manufactures, knit goods, shirts, clothing, leather and its manufactures, and assorted articles used in the novelty trade. Most of these are among the traditionally "sweated" industries. This would also include any industry making use of women on an assembly line, such as the manufacture of the electrical-coil precision instruments counted among the new establishments located in the Amoskeag mills. Such enterprises are also characterized by the fact that they can be housed in mill buildings of general design and that the total transportation costs of their product are a small fraction of the wholesale price—important considerations for an industry if it is to operate successfully in an area such as Manchester.

If the main motive leading industries to locate in Manchester, is to be relatively low labor costs, the question at once arises whether the money wages to be paid to the workers in that city will equalize their real wages with the real wages of similar workers in alternative locations, or whether this would tend to create an inequality in real

wages and lower pay in Manchester. In connection with this problem the cost of living must be taken into consideration.

According to a cost-of-living inquiry, including 59 cities, as of March 1935, made by the U. S. Works Progress Administration, and based on a 4-person manual worker's family budget at a maintenance level, the cost of living in 3 of the 5 New England cities covered—Bridgeport, Fall River, and Portland—was higher than in Manchester, while in Providence the living costs were the lowest in the group.

The maximum difference was only $51 a year, and the difference between Manchester and Fall River, communities that may be taken to represent competing localities in the northern and southern sections of the region, respectively, was only $17.00, or 1.4 percent of $1,271.51, the total cost in Fall River. The major difference was in the cost of housing, largely owing to the fact that the rentals in the 700 tenements owned by Amoskeag were about one-half the market rentals. Even the increased rentals that came into effect with their transfer to Amoskeag Industries in August 1936 were still below the market rentals. From these results it follows that if Manchester workers accept wages much below the going rate for the given industry or industries in other cities of the region, it will involve the lowering of their standard of living. According to the above analysis it is primarily on this basis that Manchester will be able to attract new enterprises.[2]

In the fall of 1938 the attraction of industries through cheap labor was more difficult than in earlier years. After the ruling of the National Labor Relations Board that "it is an unfair labor practice to divert production from a union to a nonunion factory," the opportunities for precarious employment that might be provided by runaway companies were very much reduced. Furthermore, the Fair Labor Standards Act operates to restrict the size of wage differentials that employers in Manchester could possibly offer. In this connection also, consideration should be given to the general occupational shift from mill employment and the constant dwindling in number of workers in the most productive age groups. WPA jobs also aided in maintaining the wage structure.

The locational questions with reference to new industries discussed above also apply to the development of enterprises already established in Manchester; the boot and shoe industry, for example. It would seem probable that in the immediate future "the industry will not undergo any large expansion of productive capacity, and, accordingly, any absolute or relative expansion of the industry in the Manchester area would be at the expense of some other area."

[2] Interregional comparisons upon the basis of this cost-of-living survey are difficult because size of city affects cost, especially housing and transportation, and the composition of the regions in terms of size of cities surveyed varies considerably from region to region. With respect to certain items such as food and fuel, however, size alone would have little effect upon costs. Variations in cost of these items would depend mainly on differences in transportation cost. Since New England must import most of its food and fuel supplies from other regions, it is not surprising that in this survey the cost of food and fuel in New England was the highest of the nine regions. The cost of food in the New England cities was 103.5 percent of the average for all 59 cities, while the cost of fuel was 132.6 percent of the average.

In view of the fact that between 1935 and 1938 only two companies took advantage of the low-priced mill space that had been vacant for 3 years, any large-scale development of the boot and shoe industry cannot be expected. Any expansion in this industry that might take place is very likely to "depend on the differential resistance to unionization offered by the shoe companies in this area and those in Maine and Massachusetts."

Whether or not Manchester's fate will be similar to that of other textile towns in New England which are some distance from existing marketing centers is not known. This survey, however, throws light not only on the problems arising from the decline of the textile industry in New England but also indicates some of the larger problems resulting from the migration of industry in the United States as a whole.

CHINESE MEASURES DEALING WITH UNEMPLOYMENT

THE Central Government and local authorities in China have recently taken measures for reducing unemployment in different parts of the country.[1] Special attention has been paid to the organization of relief to refugees from the war or from flood regions. These measures range from the provision of vocational training and placement facilities to the operation of large public-works schemes and the organization of new factories in agricultural settlements. Some samples of these measures are given below.

In conference with various bodies, the National Relief Commission arranged that young refugees should be registered, in order that they might be required to take up employment in industry, join the army, or improve their skill by attending a training school. In assigning them to their tasks, proper consideration will be given to age, physical fitness, educational qualifications, previous occupation, and individual preferences. This plan is now in operation in Shaoyang (Hunan). Furthermore, the Commission will endeavor to provide jobs for 200,000 refugees in the southern and western sections of Honan Province and to place 100,000 more in Szechwan, Shensi, Kansu, and Chinghai, on reclamation projects.

An organization to take up problems of labor demand and supply during the war, and at the same time to act as an employment agency, has been established at Chungking under the Ministry of Social Affairs. The Shanghai Refugee Relief Association, which includes a placement section, has reported that, as an incentive for refugees to work, a grant of $4 (Chinese) per month for not more than 3 months will be made to each of those who accept employment which the

[1] International Labor Office. Industrial and Labor Information, Geneva, April 1, 1940.

organization offers. Among a number of specialized newly established employment agencies are two for transport workers, located at Chungking and Kweilin, and one for teachers, located at Kwangsi.

The Provincial Government in Fukien has adopted a scheme for the organization of cooperatives in order to place skilled workers—electricians, masons, mechanics, metal workers, miners, printers, textile workers, etc.—in workshops and factories (some of which will be established especially to supply employment), or in engineering or on building projects.

In the Province of Ningsha, the Central Government will establish an agricultural settlement covering an area of 2,000,000 mows.[2] Work on housing and sanitation and the furnishing of agricultural implements and seed have already begun.

The Ministry of Education has issued instructions to 18 Government vocational schools to form special classes for suitably qualified students coming from the war regions, and to provide free tuition, board, and lodging. The Provincial Government of Kansu has established a new vocational school and has been preparing to open 16 vocational classes.

DISPLACEMENT OF NATIVE FARMERS BY JAPANESE IN MANCHURIA[3]

THE Government of Manchuria has created a nation-wide program, to help native farmers who must make way for Japanese immigration and other projects. The farmers will be moved mainly to North Manchuria. The program seems to be an expansion of one established for Sankiang Province in 1938, and will give some measure of relief to native farmers.

Previous Activities

The 1938 program for Sankiang Province was apparently to be a forerunner of similar instructions for this country as a whole. However, since a careful search of the official Government Gazette does not bring to light any new reference to the subject until that of November 7, 1939,[4] described in this article, the program appears to have been kept in an experimental state and confined to Sankiang Province.

Financially speaking, the original program has received comparatively little visible support from the Central Government. Past special colonization accounts have contained no items which can be considered as for the use of natives. Past accounts of the Ministry of Industry have carried only the following small sums for the use of

[2] One mow=0.1518 acre (varying).

[3] Data are from report of George R. Merrell, American Consul, Harbin, Manchuria.

[4] Instruction No. 472 of the Ministry of Industry, published in Government Gazette No. 1672, dated November 10, 1939.

migrating native farmers: 1938, 60,000 M. yuan; 1939, 210,650 M. yuan. For 1940, the amount is 215,000 M. yuan. These funds appear to be for general use, and not confined to Sankiang Province. Regarding the Sankiang Province program, in 1939 the extraordinary account for the general affairs board included 2,300,000 M. yuan for "Expenses for the Rehabilitation of Sankiang Province," which may have some connection with the program in reference. The appropriation appears neither for the previous year nor for 1940.

No detailed information is available with regard to Provincial budgets, but it is possible that some of their own funds may have been devoted to helping native farmers to settle in new homes. No grants to the Provinces from the Central Government seem to cover this matter except that for Sankiang Province mentioned above, and possibly one or two other and smaller ones with similar titles.

Purpose of the Program

In expanding the program to a nation-wide basis, the Government announces its purpose to set up a plan for moving and settling native farmers whereby they may use the lands assigned to them in parallel with Japanese immigrants, and thus encourage the creation of ideal villages and facilitate industrial development. The plan gives special attention to tenant farmers, particularly those who must move to make room for Japanese colonization or other Government enterprises, and places the program in the hands of various local bodies, under the supervision of Provincial governors. Similar local programs are to be merged into the new national plan.

The land involved is part of that purchased under the Government's special budget for the purchase of arable land. That the land is "mostly in North Manchuria" is interesting. This suggests that the program has some relation to the Northern Marches Development Plan, possibly that native farmers are being moved into new and undeveloped regions in order that Japanese immigrants may be given choice lands in more temperate regions.

Conditions of Loans

Government advances are to be made for (1) initial costs, and (2) running expenses. As a rule, they are to be redeemed within 15 years from the first year of cultivation, with periods of grace governed somewhat by local conditions before beginning payments on principal and interest.

Although nothing specific is said with regard to title to the land in question, the context of item 14 under the heading "General Rules"

indicates that it remains with the Government until its investment is redeemed, at which time the land is to be divided among the villages or farmers in accordance with a plan to be enacted separately. Items 12 and 13 provide for rents. A period of grace is allowed before their collection, and consideration is to be given to local conditions. Part of the rent money will go to local government organs and the rest to the national Government, and it is evidently through this rent money that the Government investment is to be recovered. The possibility that the land is to be divided among villages carries an interesting suggestion of socialization.

Appropriations for Support of Program

The national budget for the 1940 fiscal year carries a special account for the execution of the program. The amount appropriated is 13,388,614 M. yuan, distributed as follows:

	M. yuan
Loans to farmers for operating expenses	6, 870, 500
Purchase, construction, subsidization of various buildings and facilities	4, 345, 185
Transfers to other accounts for land purchased	1, 162, 415
Administration expenses and reserves	1, 010, 514
Total	13, 388, 614

In addition, there is the sum of 215,000 M. yuan in the account of the Ministry of Industry, already mentioned.

Indirectly, the program receives further support in that it must benefit from the money spent and experience gained in the programs for Japanese settlers and from spade work done in the course of executing other programs, such as that for the Northern Marches Development Plan.

In spite of the notable gain for native farmers, their benefits remain far below those for Japanese immigrants on a group basis. No figures are available for a per capita comparison. For the present fiscal year the colonization special account (for Japanese) is almost 80,000,000 M. yuan. The Ministry of Industry account, which contains the 215,000 M. yuan for natives, totals approximately 14,100,000 M. yuan, the large balance being for the Japanese. In addition, it must be remembered that they are helped by their own Government, and that the indirect benefits already mentioned in regard to native farmers will be received in equal measure by the Japanese.

But in any event, there finally has appeared a nation-wide and financially supported program for native farmers who must migrate.

JAPANESE FACTORY CANTEENS

THE number of canteens in factories in Japan furnishing meals to their employees was 936 at the close of June 1939, according to a report by the Japanese Ministry of Social Welfare of a survey of such canteens.[1] The daily number of meals served in these canteens totaled 1,545,627. These figures do not include canteens in factories ordinarily having fewer than 300 workers or canteens for salaried employees in industry. The largest number of these canteens, 543, was in textile factories, the number of meals served by these establishments averaging 1,053,753 per day. Factories for the manufacture of machines and tools ranked next, with 236 canteens serving a daily average of 254,391 meals, while chemical factories conducted 112 canteens, averaging 210,836 meals per day.

There were also 130 independent institutions, which were furnishing meals to the staffs of a certain number of industrial or commercial undertakings in a given locality. These undertakings, which contributed toward the establishment of these canteens, totaled 7,758, scattered over 22 of the 46 prefectures in Japan. The independent canteens served, on the average, 274,026 meals per day. The average price of meals per day ranged from 26 sen [2] to 30.7 sen per capita.

[1] International Labor Office. Industrial and Labor Information, Geneva, March 18, 1940.

[2] Average exchange rate of 1 yen (100 sen) in 1939=26 cents.

Social Security

PLACEMENT WORK OF PUBLIC EMPLOYMENT SERVICES, APRIL 1940[1]

PLACEMENTS made by the public employment office system during April showed continued gains over the levels of recent years. With an aggregate volume of 294,500 complete placements reported for the month, the number of jobs filled was the highest April total since 1937, and the 259,000 private placements was the highest total for any April in the history of the system. Applications, however, continued in large volume and the active file showed a 13-percent increase.

Complete placements made during April were more than one-fifth higher than in March and showed moderate improvement over April 1939. The 259,000 private placements were almost one-third above the volume for April last year and more than two-thirds above April 2 years ago. Increases were reported by 46 States. Greatest increases occurred in Alaska, Montana, Utah, North Dakota, Oklahoma, and New Mexico, all of which showed gains of 75 percent or more above the previous month. Almost one-half of the private placements were in jobs of regular duration. Reflecting the influence of seasonal factors, gains in temporary jobs above the totals of March were twice as large as for regular jobs. Compared with the same month in previous years, however, the increase in regular placements was greater.

Placements in public employment numbered 35,600, more than one-third above March but only about one-half of the volume of April in the preceding 2 years. In addition to the complete placements 45,000 supplemental placements were made. These represent instances in which the employment office was instrumental in bringing worker and job together, although not all steps of the placement transaction were completed by the office. Most of these jobs were in agricultural employment.

More than one and one-half million applications for work were received during April, almost 30 percent more than the volume received in April of the 2 preceding years. Excluding New York, for which reports are not available, the active file at the end of the month increased sharply; at least part of this increase was due to the rein-

[1] Prepared by Research and Statistics Division, Bureau of Employment Security, Social Security Board.

statement of lapsed applications which were removed from the file prior to a general inventory of records taken at the end of March. Despite the recent increase, the active file was 18 percent below the level of last year and 25 percent below the level of 2 years ago.

TABLE 1.—*Summary of Placement Activities of Public Employment Services, April 1940*

Activity	Number	Percent of change from—		
		March 1940	April 1939	April 1938
Total complete placements	294,537	+21.0	+8.9	+35.4
Private	258,926	+19.0	+32.8	+68.2
Regular	125,408	+12.9	+36.8	+95.7
Temporary	133,518	+25.4	+29.2	+48.6
Public	35,611	+38.2	−52.8	−44.0
Supplemental placements	45,002	+48.6	+5.8	
Total applications	1,515,373	+13.1	+29.2	+29.9
Active file [1]	5,001,832	+12.8	−17.7	−24.5

[1] Excludes New York.

Placements of veterans during April, which numbered 11,000, were more than one-third larger than in March and the 8,900 jobs in private employment included in this number were nearly one-quarter above the results of April in the 2 preceding years. Placements in public employment, however, while sharply above the totals reported in March, were over 60 percent lower than in April 1939 or April 1938. The active file of veterans at the month end, excluding New York, was nearly one-third lower than the comparable figure for April 1939.

TABLE 2.—*Summary of Placement Activities for Veterans, April 1940*

Activity	Number	Percent of change from—		
		March 1940	April 1939	April 1938
Total complete placements	11,035	+37.6	−13.9	−13.2
Private	8,909	+35.7	+23.0	+23.9
Regular	3,119	+17.7	+22.7	+51.6
Temporary	5,790	+47.8	+23.1	+12.8
Public	2,126	+46.4	−61.8	−61.4
Total applications	52,700	−4.0	+10.5	−13.5
Active file [1]	232,803	+10.6	−32.7	−45.6

[1] Excludes New York.

TABLE 3.—*Placement Activities for all Registrants, by Regions and States, April 1940*

[Preliminary data reported by State agencies, corrected to May 14, 1940]

Social Security Board region and State	Complete placements						Supplemental placements	Applications received			Active file as of Apr. 30, 1940
	Total	Private			Regular (over 1 month)	Public		Number	Percent of change from—		
		Number	Percent of change from—						March 1940	April 1939	
			March 1940	April 1939							
Total	294,537	258,926	+19.0	+32.8	125,408	35,611	45,002	1,515,373	+13.1	+29.2	[1] 5,001,832
Region I:											
Connecticut	5,194	4,304	+24.6	+32.2	2,445	890	153	22,567	+14.1	+34.3	82,989
Maine	1,341	1,207	+12.7	+.9	891	134	3	12,706	−10.4	+9.4	47,288
Massachusetts	3,413	2,878	+9.7	+39.2	1,962	535	55	39,791	−8.1	+35.1	190,001
New Hampshire	1,378	979	−8.6	−14.0	546	399	251	8,958	+8.1	+7.3	24,947
Rhode Island	685	547	−.2	−22.8	330	138	71	4,135	−58.7	−48.5	39,420
Vermont	739	709	+14.5	+23.7	407	30	22	3,698	+43.6	+21.5	18,363
Region II:											
New York	22,513	21,188	+6.6	+59.5	10,342	1,325	835	265,770	+91.1	+71.7	[2]
Region III:											
Delaware	1,017	876	+24.1	+8.8	300	141	32	3,215	+17.5	+3.1	13,922
New Jersey	8,733	8,426	+6.7	+13.3	4,951	307	634	62,312	+17.5	+18.4	267,193
Pennsylvania	12,654	10,299	+14.0	+54.6	6,631	2,355	1,088	131,488	+9.1	+21.2	355,039
Region IV:											
Dist. of Col	3,551	3,279	+12.4	+.7	1,550	272	8	9,239	−3.1	+20.5	37,062
Maryland	3,434	3,174	+19.0	+33.5	1,657	260	45	22,108	+4.0	+30.0	74,407
North Carolina	6,358	4,916	+2.9	+5.8	2,313	1,442	39	25,618	+4.7	+18.5	87,152
Virginia	4,827	3,633	+21.3	+11.3	1,866	1,194	46	24,354	+30.8	+19.9	59,256
West Virginia	2,605	2,308	+10.1	+6.9	1,034	297	199	26,477	+30.3	−9.3	80,961
Region V:											
Kentucky	2,737	2,475	+22.3	+72.2	1,057	262	164	18,227	−10.9	−18.9	92,810
Michigan	10,309	9,707	+23.2	+42.0	5,802	602	163	63,466	+3.1	+52.9	249,351
Ohio	15,532	14,942	+24.3	+44.3	7,417	590	1,047	84,282	+4.2	−5.1	311,509
Region VI:											
Illinois	14,380	14,179	+22.9	+26.5	6,593	201	740	62,031	+.9	+83.2	204,069
Indiana	8,240	7,971	+17.2	+23.7	4,197	269	903	42,883	+15.1	+5.3	164,422
Wisconsin	6,522	6,103	+32.6	+13.5	3,503	419	414	30,065	+4.1	+18.8	122,331
Region VII:											
Alabama	3,583	3,212	+.8	+48.0	2,318	371	198	22,519	−.9	+58.4	123,837
Florida	2,793	2,212	+4.0	+400.5	1,428	581	3,635	16,806	+11.7	+32.4	59,093
Georgia	8,412	7,265	+17.0	+78.7	3,343	1,147	136	23,956	−2.8	+14.7	144,984
Mississippi	4,704	2,245	+5.5	+206.3	1,358	2,459	691	18,526	+37.1	+12.7	53,270
South Carolina	3,335	1,888	+14.7	+62.1	1,089	1,447	7	9,738	+11.0	−5.6	43,532
Tennessee	4,569	4,115	+11.0	+56.4	2,355	454	119	13,117	+6.2	+5.6	119,676
Region VIII:											
Iowa	7,280	6,065	+49.1	+10.5	2,533	1,215	475	17,380	−7.5	+4.5	88,161
Minnesota	5,311	5,078	+53.0	+23.9	3,091	233	469	21,391	−5.2	+22.1	156,932
Nebraska	3,332	1,737	+41.3	+27.8	806	1,595	52	10,333	−2.3	+45.9	44,696
North Dakota	2,255	2,159	+83.1	+30.4	1,309	96	14	4,817	−8.7	+13.4	31,148
South Dakota	1,419	1,103	+45.9	+3.5	535	316	58	3,343	−32.2	+20.4	30,030
Region IX:											
Arkansas	6,128	5,675	+54.9	+122.5	1,624	453	1,111	10,124	−8.8	+27.5	52,323
Kansas	4,502	3,603	+30.6	+109.5	1,307	899	260	15,912	−16.1	+47.7	63,888
Missouri	9,508	8,859	+45.3	+91.7	3,837	649	29	49,322	+13.4	+81.5	182,441
Oklahoma	7,405	6,554	+78.0	+18.9	1,262	851	1,141	21,117	−29.0	+36.0	91,495
Region X:											
Louisiana	3,598	3,304	−3.6	−33.9	2,118	294	493	22,133	+6.8	+34.2	82,996
New Mexico	1,508	1,106	+74.7	−.8	736	402	504	5,682	+23.3	+75.0	37,009
Texas	30,712	28,168	+10.4	+17.3	8,035	2,544	22,196	50,756	+2.5	+10.5	253,274
Region XI:											
Arizona	2,711	2,389	−20.6	+64.5	1,104	322	2,066	6,677	−45.4	+34.0	27,205
Colorado	3,297	3,112	+24.1	+24.9	1,428	185	134	16,894	+4.1	+41.2	65,866
Idaho	1,928	1,748	+9.4	+14.1	951	180	46	6,749	−2.1	+18.3	14,181
Montana	2,137	1,492	+89.3	+53.7	1,127	645	399	6,058	−12.6	+31.1	30,401
Utah	1,064	897	+83.4	+34.3	418	167	223	7,627	+3.3	−20.8	22,565
Wyoming	990	494	+46.6	+19.9	308	496	8	2,969	−25.2	−18.5	9,968
Region XII:											
California	20,413	17,902	+12.3	+5.5	8,550	2,511	1,817	117,218	+13.1	+18.9	482,862
Nevada	1,298	1,084	+6.4	+43.8	636	214	213	2,969	+.9	+13.9	5,986
Oregon	4,722	3,919	+10.8	+77.2	2,316	803	1,026	24,440	+43.1	+170.6	47,628
Washington	8,031	6,736	+29.1	+101.3	3,408	1,295	495	20,731	−15.9	+67.4	101,956
Territories:											
Alaska	626	260	+134.2	+132.1	97	366	39	1,296	+26.4	+15.8	3,009
Hawaii	804	445	0	+147.2	187	359	36	1,383	+4.2	+.1	8,928

[1] Excludes New York.
[2] Data not reported.

TABLE 4.—*Placement Activities for Veterans, by Regions and States, April 1940*
[Preliminary data reported by State agencies, corrected to May 14, 1940]

Social Security Board region and State	Complete placements						Applications received			Active file as of Apr. 30, 1940
	Total	Private				Public	Number	Percent of change from—		
		Number	Percent of change from—		Regular (over 1 month)			March 1940 [1]	April 1939 [1]	
			March 1940 [1]	April 1939 [1]						
Total	11,035	8,909	+35.7	+23.0	3,119	2,126	52,700	−4.0	+40.5	[2] 232,803
Region I:										
Connecticut	257	169	+92.0	+44.4	104	88	882	−2.8	+30.3	4,205
Maine	63	42			28	21	437	−33.6	−.9	2,384
Massachusetts	80	45			35	35	1,009	−31.4	+8.5	6,076
New Hampshire	54	34			18	20	328	−7.3	−7.9	1,073
Rhode Island	27	21			10	6	484	+131.6	+156.1	1,152
Vermont	20	17			9	3	143	+47.4	+21.2	845
Region II:										
New York	549	497	+35.1	+109.7	179	52	3,473	+47.4	+51.0	[3]
Region III:										
Delaware	35	30			12	5	90	−12.6	−43.4	506
New Jersey	155	143	+32.4	+5.9	101	12	2,111	+1.6	+25.7	10,284
Pennsylvania	299	217	+33.1	+59.6	126	82	4,905	+8.9	+11.7	14,081
Region IV:										
Dist. of Columbia	100	84	+10.5	−22.2	30	16	360	−20.5	+17.6	1,956
Maryland	173	159	+25.2	+34.7	66	14	869	+8.6	+47.8	3,346
North Carolina	151	97	−4.9	−32.2	24	54	665	+21.1	−11.7	2,098
Virginia	142	80	+5.3	−14.9	30	62	518	−11.6	−11.8	1,553
West Virginia	49	39			18	10	930	−1.1	−39.6	3,987
Region V:										
Kentucky	106	73	+25.9		19	33	725	−5.4	−41.0	3,840
Michigan	413	362	+43.7	+96.7	167	51	3,272	+3.7	+126.7	14,039
Ohio	537	484	+34.1	+53.7	189	53	3,024	−1.8	−19.7	13,385
Region VI:										
Illinois	448	412	+53.7	+1.0	118	36	2,665	−18.6	+10.6	8,769
Indiana	224	208	+65.1	+13.7	81	16	1,247	−3.4	−32.8	8,995
Wisconsin	201	156	+69.6	+9.9	96	45	1,479	−6.0	+31.0	7,666
Region VII:										
Alabama	113	102	+12.1	+39.7	50	11	752	−19.6	+50.4	4,963
Florida	72	52	+4.0		29	20	596	−11.3	−16.1	2,865
Georgia	230	186	+8.1	+38.8	78	44	493	−15.9	−9.7	4,111
Mississippi	99	34			19	65	388	−21.3	−30.6	1,384
South Carolina	78	28			13	50	251	−22.5	−12.8	1,430
Tennessee	191	163	+114.5	+150.8	40	28	450	+15.1	−19.9	4,875
Region VIII:										
Iowa	595	445	+96.9	−6.9	102	150	730	−37.6	−15.8	5,452
Minnesota	224	206	+64.8	+110.2	112	18	777	−25.3	−9.1	10,015
Nebraska	178	103		+22.6	19	75	569	−12.3	+44.8	2,411
North Dakota	76	61			36	15	157	+16.3	+44.0	1,353
South Dakota	49	29			7	20	98	−11.7	−27.4	1,660
Region IX:										
Arkansas	256	237	+115.5	+83.7	31	19	343	−23.4	+3.0	2,551
Kansas	211	151	+79.8	+115.7	32	60	708	−26.9	+20.8	3,848
Missouri	483	459	+68.1	+128.4	124	24	2,155	+4.3	+72.7	9,776
Oklahoma	281	213	+36.5	−40.3	25	68	968	−35.3	+15.1	5,830
Region X:										
Louisiana	61	56	−12.5	−56.3	34	5	624	−9.7	+27.1	2,570
New Mexico	72	51			37	21	283	+28.1	+106.6	1,930
Texas	1,063	949	+29.3	+12.2	114	114	1,129	−16.2	−12.5	7,977
Region XI:										
Arizona	110	90	−32.8	−6.3	42	20	373	−53.3	+23.5	1,668
Colorado	153	140	+66.7	+4.5	36	13	808	+11.1	+49.1	3,565
Idaho	180	133	−11.9	−22.2	48	47	383	−36.6	−1.5	774
Montana	144	79	+33.9	+16.2	54	65	364	−28.6	+19.7	1,799
Utah	45	30			11	15	395	−6.6	−15.1	1,348
Wyoming	51	22			8	29	176	−30.2	−15.8	620
Region XII:										
California	1,100	897	+11.8	+1.4	271	203	6,252	+6.0	−8.7	28,387
Nevada	101	77	+16.7		27	24	161	−2.4	−4.7	358
Oregon	287	218	+3.8	+52.4	108	69	1,803	+60.1	+362.3	3,236
Washington	383	314	+66.1	+83.6	148	69	799	−40.6	+25.2	5,193
Territories:										
Alaska	45	9			4	36	62	−4.6		186
Hawaii	21	6			0	15	37			428

[1] Where less than 50 veteran placements or applications were involved in either period, the percentage change was not computed.
[2] Excludes New York.
[3] Data not reported.

UNEMPLOYMENT-COMPENSATION OPERATIONS, APRIL 1940

APRIL continued-claim receipts, including both waiting-period and compensable claims, increased 18 percent over March receipts to the highest monthly volume on record. This expansion was due largely to the markedly higher volumes of claims filed in the States which initiated new benefit years in March or April, among which were several of the larger States, and was attributable entirely to the claims filed to meet the waiting-period requirements of these States, as compensable claims in most States decreased from the level of the preceding month. The most pronounced increases in receipts were reported for Maine, Massachusetts, New Hampshire, New York, Rhode Island, and West Virginia, all of which, with the exception of New Hampshire, initiated a uniform benefit year in April. Of the 20 States showing decreased receipts, the largest were reported for Iowa, Kansas, Nebraska, Oregon, and Wyoming.

Of the 6,600,000 claims received in April, about 4,400,000 or 66 percent of the total were compensable, in contrast to 79 percent of the total received in March. Almost 60 percent of the claims received in New York, which began a new benefit year in April, were waiting-period claims.

Benefit payments to unemployed workers totaled $42,300,000, a decrease of 10 percent from March and the first reduction in 6 months. Exhaustion of benefit rights probably was the chief reason for the reductions shown by many of the States, as there was little evidence of improved employment conditions during April. The amount of benefits disbursed in April, however, was substantially higher than the amounts paid during the fall months. Decreased disbursements were general, with only 12 States reporting increased payments. In 20 States, the decreases were 20 percent or less, and in 15 States the declines ranged from 20 to 40 percent; reductions exceeding 40 percent were shown for Virginia, West Virginia, Wyoming, and Oregon. On the other hand, payments more than doubled in New Hampshire and were 70 percent higher in Rhode Island.

Out of a total of nearly 4,200,000 weeks compensated by unemployment benefits, which represented a decline of 9 percent from March, approximately 3,700,000 weeks, or 88 percent were man-weeks of total unemployment. Although there were approximately as many weeks of partial and part-total unemployment compensated as in March, there were 500,000 fewer weeks of total unemployment compensated. Five States—Massachusetts, New York, Pennsylvania, Ohio, and California—accounted for 45 percent of the weeks of total unemployment compensated in April, compared with 43 percent for this group in March. The largest proportion of weeks of partial

and part-total unemployment compensated were shown for Colorado, Hawaii, Illinois, Indiana, Oklahoma, Utah, and Wyoming.

Thus far this year, approximately $175,000,000 has been disbursed in unemployment benefits, in contrast to $146,000,000 in the first 4 months of 1939. Part of this increase is due to the fact that benefits were not payable in Illinois and Montana until July 1, 1939.

Continued Unemployment Compensation Claims Received, Weeks Compensated, and Benefits Paid, by Regions and States, April 1940

[Preliminary data reported by State agencies, corrected to May 14, 1940]

Social Security Board region and State	Continued claims			Weeks compensated			
	Number	Type		Number	Type of unemployment		
		Waiting period	Compensable		Total	Partial and part-total combined [1]	Partial only [1]
Total	6,614,084	2,236,766	4,377,318	[2] 4,169,776	[4] 3,679,182	[4] 374,205	.....
Region I:							
Connecticut	83,678	23,096	60,582	59,246	51,173	8,073	[3]
Maine	104,195	36,542	67,653	[3] 52,830	48,327	4,392	[3]
Massachusetts	390,686	146,490	244,196	200,509	200,509	[1]	[1]
New Hampshire	70,985	25,521	45,464	40,994	36,494	4,500	[3]
Rhode Island	163,135	58,284	104,851	104,851	92,412	12,439	[3]
Vermont	19,265	4,215	15,050	14,855	12,883	1,972	1,731
Region II:							
New York	1,091,969	652,166	439,803	419,733	419,733	[1]	[1]
Region III:							
Delaware	11,784	2,129	9,655	9,599	[7]	[7]	[7]
New Jersey	255,172	83,623	171,549	165,070	165,070	[1]	[1]
Pennsylvania	653,521	176,432	477,089	416,806	416,806	[1]	[1]
Region IV:							
District of Columbia	24,911	4,855	20,056	21,535	20,573	962	[3]
Maryland	117,712	35,293	82,419	66,056	58,511	7,545	6,987
North Carolina	119,406	27,395	92,011	[7] 91,066	[7]	[7]	[6]
Virginia	89,852	52,271	37,581	37,396	34,559	2,837	2,436
West Virginia	75,403	59,308	16,095	13,937	11,341	2,596	[3]
Region V:							
Kentucky	53,945	19,872	34,073	53,006	45,910	7,096	[3]
Michigan	216,488	50,369	166,119	155,462	146,454	9,008	[3]
Ohio	379,726	96,617	283,109	[8] 295,915	250,048	45,867	[3]
Region VI:							
Illinois	401,221	145,813	255,408	229,210	171,092	58,118	40,731
Indiana	120,833	37,211	83,622	83,456	63,722	19,734	[3]
Wisconsin	65,181	23,486	41,695	40,179	34,896	5,283	2,879
Region VII:							
Alabama	86,933	25,594	61,339	61,555	53,271	8,284	6,721
Florida	61,230	13,476	47,754	48,179	41,092	7,087	[3]
Georgia	82,228	24,982	57,246	56,638	52,681	3,957	3,141
Mississippi	40,038	8,231	31,807	28,662	27,337	[1] 1,325	[1]
South Carolina	41,333	9,257	32,076	30,544	25,563	4,981	2,596
Tennessee	106,249	19,747	86,502	84,532	77,203	7,329	2,546
Region VIII:							
Iowa	60,845	17,881	42,964	45,037	38,086	6,951	1,578
Minnesota	154,252	21,511	132,741	132,828	122,972	9,856	[3]
Nebraska	24,885	3,872	21,013	21,612	19,673	1,939	895
North Dakota	12,022	2,750	9,272	8,624	7,967	657	42
South Dakota	8,330	3,690	4,640	4,319	3,820	499	[3]
Region IX:							
Arkansas	66,853	15,438	51,415	51,415	48,360	3,055	180
Kansas	32,780	11,396	21,384	21,235	17,956	3,279	2,110
Missouri	115,065	43,205	71,860	63,869	53,232	10,637	4,541
Oklahoma	50,509	13,195	37,414	37,290	30,334	6,956	1,660
Region X:							
Louisiana	94,638	22,732	71,906	63,535	59,427	4,108	[3]
New Mexico	14,519	2,355	12,164	11,883	9,908	1,975	1,627
Texas	175,644	81,692	93,952	111,968	97,636	14,332	[3]
Region XI:							
Arizona	14,230	3,641	10,589	10,555	9,802	753	70
Colorado	51,367	8,022	43,345	44,359	36,338	8,021	5,050
Idaho	27,109	5,762	21,347	22,324	20,730	1,594	[3]
Montana	40,707	5,384	35,323	35,309	35,309	[1]	[1]
Utah	13,017	1,230	11,787	11,305	9,118	2,187	1,074
Wyoming	13,846	3,134	10,712	10,342	8,091	2,251	1,577

See footnotes at end of table.

Continued Unemployment Compensation Claims Received, Weeks Compensated, and Benefits Paid, by Regions and States, April 1940—Continued

Social Security Board region and State	Continued claims			Weeks compensated			
	Number	Type		Number	Type of unemployment		
		Waiting period	Compensable		Total	Partial and part-total combined [1]	Partial only [1]
Region XII:							
California	533,289	69,813	463,476	[2] 440,339	372,582	52,203	([3])
Nevada	9,705	1,463	8,242	8,671	8,085	586	10
Oregon	60,493	13,124	47,369	42,411	35,698	6,713	4,449
Washington	102,867	20,650	82,217	81,298	70,449	10,849	([3])
Territories:							
Alaska	4,590	1,324	3,266	[2] 3,222	2,901	262	([3])
Hawaii	5,443	1,227	4,216	4,205	3,048	1,157	1,115

Social Security Board region and State	Benefits paid				Month and year benefits first payable	Amount of benefits since first payable
	Amount [2]	Type of unemployment				
		Total	Partial and part-total combined [1]	Partial only [1]		
Total	$42,286,163	[4] $39,223,870	[4] $2,416,726			$999,675,767
Region I:						
Connecticut	582,981	529,537	51,326	([3])	January 1938	19,684,269
Maine	330,793	305,655	24,591	([3])	do	8,602,576
Massachusetts	2,000,884	2,000,884	([1])	([1])	do	54,836,842
New Hampshire	362,495	337,012	25,483	([3])	do	5,083,601
Rhode Island	964,598	908,872	55,726	([3])	do	17,657,710
Vermont	130,330	121,936	8,362	$6,606	do	1,858,501
Region II:						
New York	5,193,253	5,193,253	([1])	([1])	do	193,433,583
Region III:						
Delaware	80,396	([5])	([5])	([5])	January 1939	1,094,988
New Jersey	1,529,964	1,529,964	([1])	([1])	do	20,848,197
Pennsylvania	4,621,937	4,621,937	([1])	([1])	January 1938	143,016,340
Region IV:						
District of Columbia	185,524	178,973	6,551	([3])	do	3,852,862
Maryland	555,720	514,118	41,468	37,725	do	18,054,512
North Carolina	408,948	([5])	([5])	([5])	do	13,965,268
Virginia	266,523	253,302	13,125	10,828	do	11,798,180
West Virginia	118,862	97,913	20,949	([5])	do	17,193,737
Region V:						
Kentucky	393,634	356,642	36,373	([3])	January 1939	6,333,354
Michigan	1,719,778	1,669,440	50,338	([3])	July 1938	84,514,227
Ohio	[6] 2,813,427	2,588,634	224,793	([3])	January 1939	[6] 33,655,595
Region VI:						
Illinois	2,681,105	2,249,815	427,555	269,302	July 1939	30,171,158
Indiana	790,451	683,737	106,254	([3])	April 1938	30,014,641
Wisconsin	411,042	377,243	33,799	16,588	July 1936	17,013,742
Region VII:						
Alabama	399,755	352,611	47,024	38,260	January 1938	13,932,340
Florida	424,791	378,331	46,460	([3])	January 1939	5,039,173
Georgia	354,783	339,643	15,140	11,904	do	4,550,676
Mississippi	175,534	169,399	[1] 5,962	([1])	April 1938	3,695,548
South Carolina	193,104	169,903	23,094	11,190	July 1938	3,523,728
Tennessee	613,770	581,397	32,373	10,203	January 1938	12,771,751
Region VIII:						
Iowa	399,285	359,240	38,167	5,257	July 1938	9,807,724
Minnesota	1,354,632	1,276,554	77,777	([3])	January 1938	20,529,021
Nebraska	196,205	181,911	14,283	6,200	January 1939	2,209,645
North Dakota	82,508	77,298	5,210	317	do	848,848
South Dakota	30,671	27,527	3,127	([3])	do	550,951
Region IX:						
Arkansas	327,651	315,668	11,983	668	do	2,777,329
Kansas	183,719	163,007	20,712	12,371	do	3,226,408
Missouri	534,162	484,949	49,213	17,840	do	7,965,826
Oklahoma	341,664	298,165	43,499	8,315	December 1938	5,832,556

See footnotes at end of table.

***Continued Unemployment Compensation Claims Received, Weeks Compensated, and Benefits Paid, by Regions and States, April 1940*—Continued**

Social Security Board region and State	Benefits paid				Month and year benefits first payable	Amount of benefits since first payable
	Amount [2]	Type of unemployment				
		Total	Partial and part-total combined [1]	Partial only [1]		
Region X:						
Louisiana	480,395	456,203	23,702	(3)	January 1938	11,982,249
New Mexico	102,220	87,744	14,476	11,728	December 1938	1,666,149
Texas	838,343	768,006	70,169	(3)	January 1938	23,703,462
Region XI:						
Arizona	114,186	108,437	5,749	508	do	3,914,646
Colorado	437,301	379,523	56,903	33,375	January 1939	5,128,740
Idaho	252,234	238,556	13,506	(3)	September 1938	3,703,877
Montana	382,520	382,520	(4)	(4)	July 1939	2,494,139
Utah	119,661	104,065	15,596	7,774	January 1938	4,817,742
Wyoming	122,328	102,714	19,614	12,809	January 1939	1,816,814
Region XII:						
California	6,028,739	5,408,006	479,441	(3)	January 1938	85,596,515
Nevada	112,348	106,742	5,606	92	January 1939	1,313,857
Oregon	499,321	446,014	51,484	32,662	January 1938	12,063,968
Washington	967,102	876,724	90,378	(3)	January 1939	10,583,047
Territories:						
Alaska	43,760	40,409	2,296	(3)	do	535,302
Hawaii	30,826	23,737	7,089	6,775	do	409,853

[1] Benefits for partial unemployment are not provided by State law in Massachusetts, Mississippi, Montana, New Jersey, New York, and Pennsylvania. Of these, only Mississippi provides for payments of less than full weekly benefit amount for total unemployment, i. e., part-total unemployment.
[2] Includes supplemental payments, not classified by type of unemployment.
[3] In three States total weeks compensated include some weeks not classified by type of unemployment. The number of such weeks are: Alaska, 59; California, 15,554; and Maine, 111.
[4] Excludes Delaware and North Carolina.
[5] Data for partial unemployment included with data for part-total unemployment.
[6] Data not reported.
[7] Represents number of pay orders issued.
[8] Figures for April exclude 241 payments amounting to $5,345 arising from recalculation of weekly benefit amounts. This amount, however, is included in benefits since first payable.

PROGRAMS FOR BENEFIT OF BRAZILIAN LABOR [1]

WITH a few exceptions Brazil's social legislation dates from the revolution of 1930, a labor ministry being formed in November of that year. Present labor laws are numerous and complicated. The subject is now regarded as of such importance that courses are included in the Law School of the University of São Paulo (State decree 3,023 of July 15, 1937).

The constitution of 1937 is much more advanced in social reform than that of 1934 and includes many principles not subject to change by ordinary decree laws. Labor seems to have lost only its right to strike; in the later charter (art. 139) strikes and lock-outs are prohibited as antisocial.

Present Constitutional Principles

The constitution of November 10, 1937, contains the following principles of benefit to the workers:

[1] From a report prepared by Carol H. Foster, consul general, São Paulo, and transmitted by the United States Ambassador at Rio de Janeiro.

(1) Work is a social duty; the intellectual, technical, and manual worker has a right to protection and special care by the Government.

(2) Everyone has a right to live by his honest work, and the Government must protect his means of subsistence, assuring the worker favorable conditions and means of defense.

(3) Labor legislation is to assure to workers the following rights and advantages, among others:

(a) Collective labor agreements, including details such as time, amount, wage, and hours of work.

(b) Wage appropriate to the requirements of the worker and of the employer.

(c) The right of the worker to a weekly rest on Sundays and, in accordance with the technical limits of the enterprise, on religious and civil holidays.

(d) Annual leave with pay after 1 year of uninterrupted work in one enterprise.

(e) Right to indemnification proportional to the years of work in case of unjust dismissal.

(f) Retention of rights, notwithstanding change in ownership of an enterprise.

(g) Minimum wage.

(h) Eight hours of daily work.

(i) Prohibition of work for minors of less than 14 years, of night work for minors of less than 16 years, and of work in insalubrious industries for minors of less than 18 years and for women.

(j) Medical aid and hygienic measures for the worker; assuring to the woman worker rest with pay before and after confinement.

(k) Pension and retirement insurance funds for old and disabled workers, and in case of disability or death from work accidents.

(l) Legal and administrative assistance by labor organizations.

Other legal guaranties are constitutionally provided for, to be carried out in ordinary legislation.

Labor Ministry and Its Agencies

The Ministry of Labor enforces labor legislation for the most part through the National Bureau of Labor, which hears appeals; 20 regional inspectorates, of which there is 1 for each State; and a large number of inspectors called "fiscaes."

In São Paulo the official (*delegado*) in charge of the inspectorate has only a skeleton staff, most of the work being done in the State Bureau of Labor, which has a staff of several hundred. The Bureau of Labor in São Paulo was organized in 1911 and was able to obtain a delegation of most of the functions exercised directly in other States by the regional inspectorate.

Labor Relations

Labor disputes between an employer and one or more employees have been taken out of the hands of the ordinary courts and are tried in the first instance by local conciliation and arbitration boards (*Juntas de Conciliaçdo e Julgamentos*), appointed by the Minister of Labor from

representatives of both employers and employees (usually officials of a labor organization).

Decisions of the boards may be appealed to the National Labor Council in Rio de Janeiro and then to the Minister of Labor, who makes the final decision with the help of one of his legal assistants, generally called a "procurador."

Labor and Employer Organizations

Labor and employer organizations (syndicates) have formed one of the most useful instruments for carrying out the labor program. The main laws applying to such organizations are decree laws Nos. 24694 of July 12, 1934, and 1402 of July 5, 1939.

Recognition is granted by the Minister of Labor on the following conditions: (1) That the syndicate include two-thirds of the legally established businesses of a district in the case of employers, or one-third of the employees in a given occupation in a district; (2) that officers and directors have served continuously for not more than 2 years; (3) that the president of the syndicate be born in Brazil and the other officers be Brazilian citizens.

Among duties imposed on syndicates by law are the following: (1) Collaboration with the Government in developing occupational solidarity; (2) promoting the founding of credit and consumers' cooperatives; (3) affording members judicial assistance; (4) maintaining schools, hospitals, etc.; (5) promoting conciliation in labor disputes.

Among the prerogatives of labor syndicates may be mentioned: (1) Representation of the workers in an occupation before administrative and judicial authorities; (2) maintaining employment agencies; (3) signing collective labor agreements; (4) electing the representatives of workers in the occupations; (5) collaborating and advising with the Government in the study of occupational problems; (6) requiring membership fees of all the workers in an occupation.

When there is a syndicate in a given district for a given occupation, employers are required to deduct syndicate membership fees from pay checks of all persons employed in that occupation in the district (the check-off).

Legislation Now in Effect

Brazilian legislation which is in effect has been summarized as follows by Dr. Roberto Simonsen in Brazil's Industrial Evolution:

(*a*) Grant of annual vacations with full pay of 7, 11, and 15 days, according to the number of actual working days during the year.

(*b*) Assistance to pregnant women; leave of absence from work 6 weeks before and after confinement; half wages paid by the social insurance institution, or, if nonexistent, by the employer; arrangements for properly adapted rooms in factories employing more than 30 women (from 16 years of age) where children can be cared for during the nursing period.

(*c*) Compulsory insurance, to be paid by employer, against accidents to employees during working hours; indemnity and help to be given to victims are carefully regulated by law.

(*d*) Prohibition of dismissal without indemnity of any employee except for just cause; indemnity to be calculated at the rate of 1 month's salary for each completed year of service. Any employee having served more than 10 years may be dismissed from the firm in which he is employed only after a hearing held before competent authorities.

(*e*) Compulsory monthly contributions of 3 percent of wages toward the retirement and pensions institutes and funds, institutions charged with collecting contributions from employees, employer, and the Government, for the formation of guaranteed capital for pensioning old employees and helping the disabled.

(*f*) Regulating child labor, which is allowed only between the ages of 14 and 18, as well as compelling employers to provide elementary education for illiterate children.

(*g*) Industrial working hours limited to 48 a week. In exceptional cases, by means of a previous agreement, the hours may be increased in accordance with a sliding scale for additional wages.

(*h*) Special legislation for employees in transport enterprises, as well as additional wages in those industries considered prejudicial to health.

(*i*) A fixed minimum wage that will satisfy normal food, housing, clothing, hygiene, and transportation requirements of all workers, to be calculated for various regions of the country and subject to alterations in accordance with circumstances.

(*j*) Institution of a special code of laws for labor questions.

Mention should also be made of enactments dealing with compulsory syndicates, labor nationalization, control to be exercised by employer of employee's fulfillment of military service, as well as payment to the latter of two-thirds of his wages or salary during the period of compulsory military service. There are other laws and regulations which have already been enacted or are still being drawn up.

Retirement and Pensions

Except in agriculture and domestic service employees must be members of a retirement and pension institute appropriate to their class, contributing from 3 to 8 percent of their salaries; employers give a like amount; and in certain cases the Federal Government contributes.

The funds thus accumulated are used to pay those who are retired and pensioned and may also serve as a means of providing low-cost homes for workers.

Retirement and pension institutes have been organized for employees in banking, trade, maritime, and land transportation, Government positions (public employees), and industry.

The industrial employees' institute is typical. Its head office is in Rio de Janeiro and it has branches in all the States. It is controlled by the Minister of Labor, who appoints the president and the State directors of the institute. The funds of this institute are derived from 1,100,000 industrial employees and 63,400 employers throughout Brazil. Of the employees some 480,000 are in São Paulo—255,000 in the capital city.

The resources of all the institutes may be indicated as follows (see "Brazil 1938" of Serviço Gráfico do Instituto Brasileiro de Geografia e Estatistica):

Receipts and Expenditures of Retirement and Pension Institutes

Year	Receipts	Expenditures	Balance
	Milreis	*Milreis*	*Milreis*
1937	359, 445, 403. 0	124, 184, 539. 7	235, 260, 863. 3
1938 [1]	452, 295, 733. 3	166, 604, 012. 8	300, 000, 000. 0
1939 [1]	618, 178, 927. 9	209, 705, 770. 2	408, 473, 152. 2

[1] Estimated.

Retirement and pension funds (*Caixas de Aposentadorias e Pensões*) are similar to the institutes, but are local instead of national in character and are controlled by the enterprise and its employees—under Government supervision but not directly by the Government. Most of the public utilities have funds.

The Two-Thirds Law

The proportion of aliens employable by enterprises in Brazil was limited by the Vargas Government in 1930. Except for certain agricultural and extractive industries and special cases authorized by the labor authorities and the President of the Republic, commercial and industrial enterprises having more than three employees may not have more than a third of their employees aliens, nor may aliens receive more than a third of the total pay roll. Branches and agencies must observe the same restrictions as if independent enterprises.

No alien may receive a higher salary than a Brazilian doing the same work; doubtful cases are decided by the labor authorities. If no qualified Brazilian expert is available for a certain task, aliens may be employed without regard to the two-thirds rule.

For purposes of control the State labor authorities require from all enterprises triplicate lists of employees and their nationalities, to be submitted between May 2 and June 30 each year.

For purposes of the two-thirds law aliens residing in Brazil for more than 10 years and having Brazilian wives or husbands or Brazilian sons may be counted as Brazilians.

In general, the learned professions are reserved exclusively to Brazilians.

Minimum Wages

Minimum wages were provided for in decree law No. 185 of January 14, 1936, as a right of the worker, to satisfy his needs for food, housing, clothing, hygiene, and transportation. A minimum wage was promised in the constitution of 1937, and by decree law No. 399 of April 30, 1938,

regulations for the execution of law No. 185 were approved by the President.

Minimum-wage commissions have been set up by the Minister of Labor in every State. The commission for São Paulo has recommended for enactment by presidential decree that industrial workers in the capital receive at least 220 milreis, and those in the interior 160 to 200 milreis a month. No minimum has been determined for agricultural labor.

In June 1939 the Minimum Wage Commission of São Paulo used the following estimate of an adult laborer's living costs as a basis for calculations:

Cost of living in São Paulo, June 1939

Item	Capital	Interior		
		Large cities	Small cities	Others
	Milreis	*Milreis*	*Milreis*	*Milreis*
All items	220.0	200.0	180.0	160.0
Food	105.6	96.0	90.0	84.0
Shelter	44.0	44.0	41.4	36.0
Clothing	33.0	32.0	30.6	22.0
Hygiene	19.8	18.0	18.0	18.0
Transportation	17.6	10.0	----------	----------

Unhealthful Industries

Unhealthful industries are classified as maximum, medium, and minimum, and include working with lead, mercury, silica, phosphorus, arsenic, benzine, hydrocarbonates (i. e. chloroform), carbon sulfide (such as vulcanizing of rubber), radium, chromium treatment of metals and leather, etc. Wages in these industries are from 10 to 25 percent above ordinary wages (Minister of Labor's Order No. SCM 51 of April 13, 1939).

Housing

Practically every city in Brazil has its poor district—cortiço in São Paulo, mucambo in Recife (Pernambuco). In São Paulo a cortiço unit for a family of five costs 6 to 8 contos [2] and often rents for 150 milreis a month, while a family house with modern conveniences costing 15 contos brings in a rental of only 200 milreis monthly.

In São Paulo collective habitations classed as cortiços and basements are subject to a surtax of 10 percent on the building tax or "imposto predial," but houses inhabited by the owner are exempt from the building tax if the rental value is not over 150 milreis a month. Otherwise houses, whether built for rent or not, are subject to a heavy

[2] 1 conto=1,000 milreis; 1 milreis in 1939=6 cents in United States currency.

building tax (6.5 percent on the rent value), and fees or light taxes under various headings such as street (*viaçao*), water (*agua*), sewerage (*esgoto*), and garbage (*lixo*).

In São Paulo in 1939 there were over 9,000 new buildings covering some 850,000 square meters, but only 3.9 percent of this area was used for workers' houses.

The pension and retirement institutes are accumulating funds which might provide low-cost dwellings. Employees with a margin of 300 milreis a month can find help for buying a 50-conto house.

The provision of houses for workers was discussed at the recent Pan American Conference on Architecture and Construction held at Buenos Aires.

Some experimental work has been done by the Ministry of Labor near Rio de Janeiro and São Paulo. In Recife (Pernambuco) tenements are being replaced with small but sanitary dwellings. In São Paulo some companies are erecting houses at low rental for their employees as a means of reducing costly labor turn-over.

Meals for Workers

Even low-priced commercial restaurants charge prices too high for the poor. One hardship suffered by many workers and one reason for the customary long noon period in Brazil is the necessity of going home for lunch on crowded trams or busses. As a help for woman employees, the League of Catholic Women of São Paulo has a few restaurants offering meals at low prices.

Only recently the Federal Government provided for the compulsory organization of restaurants at establishments having more than 500 employees (decree law No. 1238 of May 2, 1939). The law is not yet in complete operation. Only a few factories in São Paulo provide low-priced restaurant services for employees.

Maternity, Youth, and Children

In order to protect the working family and the large family, the President published decree law No. 2024 of February 17, 1940, providing protection by the Federal Government for maternity, children, and youth throughout Brazil. A national Children's Bureau has been organized in the Ministry of Education.

The Juventude Brasileira was created by decree law No. 2072 of March 8, 1940, for the compulsory civic, moral, and physical education of children and youth. It is organized as a national institution.

BRITISH UNEMPLOYMENT-INSURANCE FUND IN 1939

BALANCES of £57,555,222 in the general account of the British unemployment-insurance fund and of £3,397,222 in the agricultural account were shown in the financial report of the Unemployment Insurance Statutory Committee for the year 1939.[1] The receipts for the calendar year in the general account were £67,283,926, of which all but £1,283,387 represented insurance contributions; the corresponding figures for the agricultural account were £1,664,911 and £79,779. Expenditures for unemployment benefits in 1939 from the general account amounted to £40,690,000, while expenditures for administration, debt service, and minor items totaled £9,992,348. The excess of income over expenditure, therefore, was £16,601,578. Taking all items together, the expenditure of £50,682,348 shows a decrease of £11,637,679 as compared with the expenditure of £62,320,027 in 1938. This reduction was mainly due to the reduction in unemployment and in the proportion of the unemployed ranking for benefit. The cost of unemployment benefits for agricultural workers amounted to £831,000 and the expenditure for administrative and minor items was £210,560. During 1939 income exceeded expenditure by £623,351. The total expenditure of £1,041,560 in 1939 showed an increase of £47,911 over the expenditure of £993,649 in 1938. The reduction in the receipts of the agricultural fund from £1,270,466 in 1938 to £1,060,330 in 1939 was due largely to the reductions in the rates of contributions which were effective in July 1938 and in July 1939, while the increase of £89,000 in the expenditure on benefits was the result of improvements in benefit rates recommended by the committee in its 1938 report.

The following table shows the approximate receipts and payments of the general account and of the agricultural account of the unemployment-insurance fund for the years 1938 and 1939, prepared for the Unemployment Insurance Statutory Committee. The statement includes figures taken from accounting and other records which had not, at the time of publication, been subjected to examination and audit.

[1] Great Britain. Unemployment Insurance Statutory Committee. Reports on the Financial Condition of the Unemployment Fund on December 31, 1939. London, 1940.

Receipts and Expenditures of British Unemployment-Insurance Fund, Years Ending Dec. 31, 1938 and 1939

Item	General account		Agricultural account	
	1938	1939	1938	1939
Receipts	£65,894,665	£67,283,926	£1,942,533	£1,664,911
Contributions from—				
Employers and workers	42,658,951	43,799,457	1,270,466	1,060,330
Defense departments in respect of men discharged from H. M. forces	338,333	218,475		
Exchequer	21,453,969	21,982,157	628,213	524,802
Interest on investments	1,431,243	1,272,798	43,541	79,520
Miscellaneous receipts	12,169	11,039	313	259
Expenditures	65,894,665	67,283,926	1,942,533	1,664,911
Unemployment benefit	51,662,000	40,690,000	742,000	831,000
Refunds on contributions in respect of noninsurable employment	89,346	53,617	4,929	2,675
Repayments in respect of yearly and half-yearly hirings			9,110	8,050
Grants for authorized courses of instruction	420,000	415,000	2,000	3,000
Grants toward traveling expenses of insured persons seeking employment	14,700	14,689	30	34
Administrative expenses	5,874,592	5,608,262	235,580	196,801
Debt service	4,259,389	3,900,780		
Excess of receipts over payments	3,574,638	16,601,578	948,884	623,351
Applied toward reduction of debt, Mar. 31, 1939		3,000,000		
Balance on Dec. 31, 1939	43,953,644	57,555,222	2,773,871	3,397,222

General Account

The debt service of the fund was materially altered in March 1938 when repayment of £20,000,000 of the outstanding debt was made. As a result of this payment, the semiannual debt charge of £2,500,000 was proportionately reduced. A further repayment on March 31, 1939, of £3,000,000 on the outstanding debt reduced the half-yearly debt charge from £2,006,259 to £1,931,767. For the first quarter of the year the charge was at the higher rate and for the other three quarters at the reduced rate, making the total for the year £3,900,780. The debt at the end of September 1939 was £77,082,000, and the rate of interest from that date until the end of the period fixed for repayment will be 3⅛ percent.

The amount of money in the unemployment fund at the end of 1939 was materially greater than had been anticipated, and if unemployment had followed the course for which provision had been made in accumulating a reserve, the excess of expenditure in 1939 over income would have amounted to about £8,250,000. However, as income exceeded expenditure by approximately £16,600,000, the question arose as to whether or not this sum plus the estimated saving, or any part of it, could be considered as a disposable surplus.

Representations were made on this question to the committee by the British Employers' Confederation, the Trades Union Congress, the Parliamentary Committee of the Cooperative Congress, and from other workers' organizations. The employers' organization believed that since a depression with a high rate of unemployment

followed the last war, any surplus should be added to the balance in the fund and should not be used toward a reduction of the debt, since the rate of interest which the fund would have to pay, if reborrowing became necessary after the war, was uncertain. However, it was recognized that with the continuance of the war the tendency would be more and more toward full employment and toward further excess of income over expenditures. In that case, and depending on the length of the war, the surpluses might become so large that they would be available for disposal and in that event should be used for reduction of contributions.

The representatives of the Trades Union Congress, on the other hand, believed that the gains in 1939 should be regarded as a disposable surplus, and should be used to abolish the waiting time, to increase benefits, and to change the anomalies orders in respect of married women with a good industrial record since marriage. It was considered that the 1939 excess of income over expenditure should not be regarded as a war profit but as due mainly to the working of normal economic courses, and that by suitable Government action after the war unemployment such as followed the last war might be avoided.

In considering these arguments, the committee reviewed the course of employment since the end of October 1937, when a marked decline in employment occurred which bore the usual marks of a cyclical depression. The decline was halted in July 1938 and after a period of improvement, including a stationary period from August 1938 to March 1939, employment improved so much that the fund made large profits, amounting in the 9 months from April to December 1939 to about £17,000,000 or £430,000 a week. Since the committee considered that some of the improvement, if not all, could be attributed to defense expenditures, it was contended that the unexpected gain should not be treated as a normal incident of unemployment insurance, but in part, at least, as in the nature of war profits. More important, however, than considering the cause of the improvement in the finances of the fund are future prospects as a result of the war.

In August 1914 there was no general scheme of unemployment insurance in force in Great Britain, and although unemployment had risen a little from the boom year of 1913, the percentage of unemployed trade-unionists rose only to 7.1 percent at the end of August 1914. Thereafter the unemployment rate began to decline and was less than 1 percent in the years 1916 to 1918, rising to 2.55 percent in 1920. The percentage of unemployment was 15.55 in 1921, 17.20 in 1922, and 12.50 in 1923.

The unemployment rate recorded under the unemployment-insurance scheme in the last month before the outbreak of the present war was 8.5 percent; it increased slightly in September and fell a little in November and December. A close comparison between the unem-

ployment rate recorded under the unemployment-insurance scheme at the present time and the rates recorded by the trade-unions in the last war is not warranted, but it was considered that it could be concluded that the burden of unemployment at the outset of the new war was materially greater than in the beginning of the last war, and that the initial rise through the outbreak of war was relatively less but that the decline of unemployment since the first months is less definite than in the earlier period. The small reduction in the last 2 months of 1939 was not greater than the normal seasonal improvement, although it was not due to seasonal causes, and while employment increased in munitions industries, there was less than the usual improvement elsewhere. It appears, it is stated, that the circumstances of the present war have involved a more extensive initial dislocation than occurred in 1914, and readjustment has been at a slower rate than in that year, although it is to be expected that as the war proceeds the unemployment rate will fall to levels which it would not reach in peace. At the close of the war, however, there will be every reason to expect there will be severe unemployment as there was after the last war.

Even though steps are taken to ease the transition from war to peace production, this cannot be accomplished without severe dislocation.

For three reasons, the resulting burden on the unemployment fund will be on this occasion greater than might be suggested by a study of the unemployment percentages of 1919 and to 1922. (1) As no general insurance scheme was in force when the last war ended, or for more than 2 years thereafter, provision for unemployment was made during the 2 years 1919–20 mainly by donation schemes, covering ex-service men and women for between 2 and 3 years and civilian employees for 1 year. By the system of donations the claims both upon the trade-unions and upon the limited insurance scheme then in force were materially reduced during those periods. (2) Insofar as the present war requires a higher degree of mechanization than the war of 1914–18 it involves a greater distortion of the industrial structure and the number of men engaged in making armaments will be materially greater in proportion to the number of men in the fighting forces than was the case in the earlier war. The men in the fighting forces, insofar as they are unemployed on demobilization, will be provided with insurance under the existing schemes for men discharged from the forces. On their return to civilian life, they will throw a burden on the unemployment fund indirectly only insofar as they may displace others who had been working in place of them during the war. The much larger proportion, however, of civilian employees who must inevitably be displaced, when the need for armaments ceases abruptly, will be a direct burden on the unemployment fund. (3) The expected boom in employment during the war will mean that during that period all employable people acquire claims to unemployment benefit, so that the cost of their unemployment after the war will fall not upon the Unemployment Assistance Board but upon the unemployment fund.

In adjusting the finances of the insurance fund, the principle has been followed in the past of equating income and expenditure, not

from year to year, but over the period of a trade cycle which has been assumed to have an average length of 8 years. On this basis it has seemed safe to assume that a period of 8 years from the present time will cover both the war and a substantial depression thereafter. The committee has power to recommend such measures as seem to be advisable in dealing with the large debt of the unemployment fund. Since the immediate consequence of using the balance of the unemployment fund to reduce the debt is to reduce proportionately the debt charge, it was concluded that it would be advisable to apply £37,000,000 of the amount outstanding to the credit of the general account of the unemployment-insurance fund to the discharge of the liabilities of the fund, as it is considered the unemployment fund is likely to continue to be more than reasonably sufficient to discharge its liabilities. This recommendation was accepted by the Government and legislation adopted putting it into effect. It will effect a net improvement in the income and expenditure account of the fund at the rate of 3 percent on the sum repaid, or about £1,100,000 a year. An increase, recommended by the committee, in the rate of benefit for dependent children, amounting to 4s. for the first two dependent children and 3s. for each other such dependent child, instead of the flat rate of 3s. per child, was also adopted.

Agricultural Account

The problem of the agricultural account as a result of the war is somewhat different from that of the general account. Although the rate of unemployment in agriculture has been somewhat below expectation, there does not appear to be a prospect of any such reduction of agricultural unemployment during the war as is expected in the general scheme, but on the other hand there is not likely to be any equally catastrophic increase in agricultural unemployment as an aftermath of the war.

Representations made by representatives of employers and workers in the agricultural industry to the committee, relative to the report on the financial condition of the unemployment fund, brought the suggestion from the employers' groups in England and Scotland that if the balance in the agricultural account continued to increase there should be a further reduction in contributions, and the representatives of the English farmers were in favor of an increase in benefits commensurate with the recent increase in wages. Representatives of employees asked that the waiting time should be abolished, that the limit on the weekly amount payable should be removed, and that there should be an all-round increase in benefits. The Ministry of Agriculture and Fisheries favored improvements in benefits to

reduce the disparity between the benefits paid under the general scheme and those paid under the agricultural scheme, and suggested raising the limit on the weekly benefit and an increase in the rate of benefit for dependents.

The committee found that, as the agricultural account is likely to continue to be more than reasonably sufficient to discharge its liabilities, the rate for dependent children should be the same as that recommended under the general scheme and the maximum weekly benefit for men with dependents should be increased from 33s. to 35s.

Labor Organizations

CANADIAN TRADE-UNION BENEFITS, 1938

BENEFITS paid in 1938 by 7 of the 30 Canadian Central labor organizations amounted to $86,910.44. This was an increase of $39,252.66 as compared with the figures reported by 6 organizations for the preceding year. The amount paid in 1938 in benefits for various purposes by each of the 7 organizations is shown in the following table: [1]

Benefits Paid in 1938 by Specified Canadian Labor Organizations

Organization	Death benefits	Strike benefits	Sick benefits	Other benefits
All organizations	$13,865.70	$9,200.00	$5,726.74	$58,118.00
Algoma Steel Workers' Union		200.00		118.00
Canadian Association of Railwaymen				56,000.00
Canadian Brotherhood of Railway Employees	4,904.85		685.49	
Canadian Brussels Carpet Weavers' Beneficial Association	185.00			
Canadian Shoe Workers' Union and Allied Crafts		9,000.00		2,000.00
Civil Service Association of Alberta	6,000.00		3,500.00	
One Big Union	2,775.85		1,541.25	

Of the 98 international labor organizations operating in the Dominion, 56 reported on benefits paid to members (both in Canada and the United States) in the fiscal or calendar year 1938. These benefits totaled $19,297,456.

In addition, 883 local branch unions expended $381,228 in benefits, which amount exceeded the disbursements of 811 local branch units in 1937 by $57,666.

ORGANIZATION OF TRADE-UNIONS IN SPAIN [2]

THE basic principles of the National Trade-Union Organization, the creation of which is referred to in the Labor Charter of Spain, are set forth in the preamble to the act of January 26, 1940, with reference to trade-union unity in that country. According to these principles "the Trade-Union Organization should be a united whole, all-embracing, and graded into higher and subordinate organizations." As a

[1] Canada. Department of Labor. Labor Organization in Canada (for the calendar year 1938), p. 223. Ottawa, 1939.

[2] International Labor Office, Industrial and Labor Information (Geneva), April 1, 1940 (pp. 2-3).

consequence, there is to be but one type of trade-union for the whole national economic system which, however, will have various branches of production or services.

For the purpose of safeguarding the country's interest, the Government thinks it advisable to proceed gradually with the establishment of the corporate organization of the production forces—an initial transitional period followed by a later and definitive one.

Section 1 of the above mentioned act provides that the Trade-Union Organization of the Spanish Traditionalist Phalanx of the National Trade-Union Shock Brigades is the only one which the State is to recognize, and no other group with like objectives will be permitted to organize. However, duly authorized public institutions and official organizations which stand for the economic rights of special occupational groups will still exercise those functions until their dissolution is decided upon by legislation or by order.

From the date of the publication of the act of January 26, 1940, the organizations established to defend in whole or in part any class or economic interests, regardless of the titles of such organizations (trade-unions or employers' associations), are to be incorporated in the trade-union organization of the Phalanx. The activities of these various bodies "will then be subject to the discipline of the Phalanx under the supervision of the National Trade-Union Council. This council will propose to the Government the date at which and the methods by which each of these associations should eventually be incorporated in the new system."

Registered associations or those which have requested registration as cooperative societies under section 16 of the act of October 27, 1938, will come under the provisions of the new legislation if their activities include in whole or in part the defense of class or occupational interests. Organizations which have functioned only as cooperative societies previous to the promulgation of the act of 1938 will not be covered by the new law.

Education and Training

VOCATIONAL EDUCATION, 1938–39

DURING the fiscal year ended June 30, 1939, there were 2,085,427 students enrolled in vocational schools or classes (agricultural, trade, industrial, home economics, and business), operated under State plans in the United States, including Alaska, Hawaii, and Puerto Rico. This registration represented an increase of 275,345 over the previous fiscal year.[1] Of the total students enrolled 538,586 were farm youth and adult farmers taking agricultural courses; 715,239 were boys and girls and adult trade and industrial workers taking trade and industrial courses; 741,503 were girls and women following homemaking courses; and 90,099 were boys and girls and adults in training for the distributive occupations. In table 1 the number of students in various types of classes in 1938–39 are shown, as well as the increases in the enrollment of these classes as compared with the preceding year. While only 90,099 are reported in business (distributive) education in 1939, this, however, represents an increase of 150.2 percent over 1938 which was the first year in which this particular type of education was given.

TABLE 1.—*Enrollment in Vocational Schools or Classes Operated Under State Plans, Year Ended June 30, 1939*

Type of school	Enrollment, 1938–39					Increase from 1937–38 to 1938–39				
	Total	Agricultural	Trade and industrial	Home economics	Business education [1]	Total	Agricultural	Trade and industrial	Home economics	Business education [1]
All types	2,085,427	538,586	715,239	741,503	90,099	275,345	77,710	29,435	114,109	54,091
Evening	657,603	181,962	156,464	236,034	83,143	87,895	23,149	[2] −6,855	20,866	50,735
Part-time	486,551	51,593	362,410	65,592	6,956	47,558	8,693	24,128	11,381	3,356
All-day	941,273	305,031	196,365	439,877	.....	139,892	45,868	12,162	81,862	.....

[1] Distributive occupations. [2] Decrease.

In table 2 the total enrollments in vocational schools and classes under State plans, by years from 1929 to 1939 are reported. Except for the years 1933 and 1934 substantial increases are shown, the expansion for 1938 and 1939 being, respectively, 313,245 and 275,345, the highest records for the period here reported.

[1] U. S. Office of Education. Vocational Division. Digest of Annual Reports of State Boards for Vocational Education, fiscal year ended June 30, 1939. Washington, 1940.

TABLE 2.—*Enrollment in Vocational Schools Operated under State Plans, by Years, 1929–39*

Year	Total		Agricultural	Trade and industrial	Home economics	Business education (distributive occupations)
	Number	Increase				
1939 [1]	2,085,427	275,345	538,586	715,239	741,503	90,099
1938	1,810,082	313,245	460,876	685,804	627,394	36,008
1937	1,496,837	115,136	394,400	606,212	496,225	.....
1936	1,381,701	134,178	347,728	579,971	454,002	.....
1935	1,247,523	128,383	329,367	536,932	381,224	.....
1934	1,119,140	[2]—31,187	289,361	486,058	343,721	.....
1933	1,150,327	[2]—25,835	265,978	537,512	346,837	.....
1932	1,176,162	58,606	257,255	579,591	339,316	.....
1931	1,117,556	53,020	237,200	602,755	277,601	.....
1930	1,064,536	16,560	193,325	633,153	238,058	.....
1929	1,047,976	48,945	171,466	627,397	249,113	.....

[1] Provisional figures.
[2] Decrease. The decreases for 1933 and 1934 should be considered in connection with the decreases in Federal funds available in these years. A reduction in 1933 of 8 percent in these funds, and a further reduction in 1934 of 10 percent, as compared with the previous years, largely account for the decrease in enrollments of less than 3 percent for each of these years.

Federal expenditures in 1939 for vocational education under State plans totaled $19,433,394 as compared with $17,737,118 for the year 1938. Expenditure from State and local funds for 1939 amounted to $33,232,777 as against $27,257,419 for the preceding 12 months as reported in table 3.

TABLE 3.—*Expenditures of Federal, State, and Local Money Under State Plans for Vocational Education, by Years, 1929–39*

Year	Expenditure		Increase or decrease in expenditure	
	From Federal funds	From State and local funds	From Federal funds	From State and local funds
1939 [1]	$19,433,394	$33,232,777	+$1,696,276	+$5,975,358
1938	17,737,118	27,257,419	+7,723,449	+871,803
1937	10,013,669	26,385,616	+264,744	+2,706,707
1936	9,748,925	23,678,909	+376,945	+3,760,966
1935	9,371,980	19,917,943	+2,421,035	−1,319,529
1934	6,950,945	21,237,472	−777,300	−1,161,171
1933	7,728,245	22,398,643	−686,589	−2,588,926
1932	8,414,834	24,987,569	+436,105	+823,106
1931	7,978,729	24,164,463	+574,506	+1,659,787
1930	7,404,223	22,504,676	+525,693	+1,908,900
1929	6,878,530	20,595,776	+47,078	+1,701,467

[1] Provisional figures.

State Trends in Curriculum Development

Among the general trends in curriculum development in vocational education is that toward the cooperative development of curriculum materials. For example, in certain Southern States teachers of vocational agriculture and home economics are endeavoring to develop course-of-study materials to meet the common requirements of both boys and girls on the farm and in the farm home. Continued coopera-

tion is reported between teachers of vocational agriculture and the Soil Conservation Service, the Rural Electrification Administration, and like agencies to develop subject-matter and course-of-study materials which will be helpful to vocational agricultural students.

In a number of States a disposition on the part of vocational teachers to cooperate in curriculum-revision programs is also noted. Michigan, for instance, reported that "curriculum revisions for the improvement of education for everyday living stimulated by the State department of public instruction, have tended to strengthen the emphasis upon homemaking courses for improved family living."

Another major trend—the outcome of new economic and social factors—is that toward the upgrading of various forms of vocational education. Ever-increasing attention is being given to the development of vocational courses on the post-high-school, junior-college, or technical-institute level.

Under the direction of State specialists in subject matter, instructional plans for various short-unit extension courses are being worked out.

Greater emphasis is being placed on the relations of instructional materials to actual job requirements.

The problem of the responsibility of the schools for the occupational adjustment of all young persons is being more and more seriously studied by vocational educators.

If education is to meet the needs of youth in a modern world, it will be necessary for the schools to provide vocational training which will prepare young men and young women for advantageous entry into a larger number of occupations, and which will be adapted to a wider range of student abilities. The continued growth of apprenticeship training, of part-time cooperative programs of training for the distributive occupations, of junior occupational schools and classes preparing for the semiskilled and operative types of industrial employment mark significant advances in curriculum development.

In developing curricula the States are recognizing the principle that course-of-study material must be appraised on its functional or use value. Furthermore, vocational education must be based upon investigations of given areas, and on agricultural, trade, and occupational analyses, and these studies must be kept up to date.

The cooperative planning of home projects by teachers and pupils in home-economics courses exemplifies another principle being followed in curriculum development.

Among the curriculum-building problems which are now being studied or which should be the subject of continued research are those listed below:

1. Are there occupational skills, basic to a number of occupations, which may be learned and to some extent generalized?
2. What are the appropriate materials of instruction in the area of occupational adjustment for the slow-learning or nonacademically-minded pupil?

3. What can be done to vivify and functionalize the teaching of English and social studies in vocational schools and courses?

4. How may related subject materials be kept continuously related to the actual needs of the occupation?

5. What are the relative merits of so-called "technical courses" as compared with "vocational courses" in the development of occupational intelligence and skill?

6. How can the educational experiences of evening-extension students be organized in a progressive sequence?

7. How can diversified curriculum offerings which will assure greater equality of vocational-educational opportunity be set up to serve small town and rural areas?

8. What is the optimum arrangement for the guidance and counseling of students in the selection of a personal vocational objective?

9. To what extent should industrial and practical arts subjects be made the core of the curriculum for all students who are not college bound?

10. How can the needs of the evening-extension teacher for course outlines be most effectively met?

11. What are the comparative values in courses for teachers in the various fields of vocational education, of general education in the socio-civic area, and of special courses in educational methods?

12. To what extent are courses whose controlling purpose is to prepare for useful employment, effective in developing problem-solving ability or the scientific habit of thinking?

VOCATIONAL REHABILITATION, 1938–39

UNUSUAL progress in the national vocational rehabilitation program was reported for the year ended June 30, 1939.[1] In Delaware, a rehabilitation service was established. In Kansas—the only State in which no State service was operating—a great deal of promotion work was done during the year. Although no State appropriation for rehabilitation was made, the Kansas State Department of Social Welfare earmarked $10,000 for rehabilitation activities, and the Kansas Tuberculosis Society's executive committee appropriated $1,500 in the interest of the tuberculosis phase of a State rehabilitation service.

The authorization of Federal funds for allotment to the States was $3,500,000 in 1938–39, an increase of $1,562,000 or about 81 percent as compared with the preceding year. The report states that the Federal Congress recognized the need for enlarging the program and making the service available to groups previously beyond its scope. In this connection, proposed new policies were discussed with a view to providing more comprehensive activities in behalf of the physically handicapped.

The organization of a vocational rehabilitation division in the United States Office of Education, with a director immediately re-

[1] Vocational Rehabilitation in 1938-39, by Robert E. Thomas, Special Agent, Federal Rehabilitation Division. (In National Rehabilitation News, Madison, Wis., September 1939.)

sponsible to the Commissioner of Education, indicates an opportunity for a more rapid growth of rehabilitation services. An increase of about 50 percent in the funds authorized for the administration of the Federal office "will make possible a more complete service to the States * * *."

The number of cases rehabilitated during the year 1938–39 totaled 10,747—a gain of 9.2 percent over 1937–38.

In table 1, the increases in cases rehabilitated is recorded by regions. Of the total cases of rehabilitation in all regions, 7,707 or 72 percent received training. This is the highest percentage since the inauguration of the national program.

TABLE 1.—*Rehabilitations through National and State Services, 1938–39*

Location	Rehabilitations					
	Total		With training		Without training	
	Number	Percent change from 1937–38	Number	Percent change from 1937–38	Number	Percent change from 1937–38
Entire country	10,747	+9.2	7,707	+34.1	3,040	−9.0
Region:						
Eastern	2,551	+6.1	1,490	+23.8	1,061	−11.5
Central	3,298	+11.5	1,911	+25.8	1,387	−3.0
Southern	3,098	+10.1	2,688	+17.9	410	−23.4
Western	1,800	+7.8	1,618	+16.0	182	−3.2

The expansion in rehabilitation work resulting from the more liberal authorization of funds for this purpose under the Social Security Act is indicated in table 2.

TABLE 2.—*Rehabilitation Cases Receiving Service on June 30 of Each Year Since 1933*

Year	Number of cases, by status			
	Total	In training	Awaiting placement after training or physical restoration	Other status [1]
1939	46,750	14,960	7,504	24,286
1938	47,843	15,839	6,261	25,743
1937	42,055	13,457	4,283	24,315
1936	41,726	11,272	4,198	26,256
1935	40,941	11,108	5,650	24,183
1934	37,681	9,878	3,663	24,140
1933	25,204	9,918	4,566	10,720

[1] Eligible and feasible, under advisement; awaiting placement without other service, and in employment, being followed up.

Migratory Labor

MIGRATORY STRAWBERRY PICKERS

AN intensive study of 81 white families in the strawberry fields of McCracken County, Kentucky, and White County, Arkansas, in 1939, covered two groups of migrants which are respectively designated as "all-year migrants" and "one croppers." [1] The one croppers remain with the strawberry pickers for a few weeks and then go back to their homes and become a part of the local cotton labor supply. The all-year migrants are wanderers 6, 8, or 10 months out of 12. They may take to the road in January, picking strawberries in Florida and following this crop into the Gulf region and thence to the valley of the Mississippi. They work on many crops in various communities, some of them making their way even as far as Michigan or Wisconsin and traveling back to the South to pick cotton and to help with the winter crops.

One-third of the strawberry-picking migrant families covered by this study in White and McCracken Counties lived in tents. These shelters were frequently improvised of canvas and sticks. A small number of the families slept in their jalopies or trailers. Two slept outdoors, seeking cover when it rained in their neighbors' quarters. Only 3 families were tenants or roomers in what might be considered houses. Approximately one-half of the total families "were quartered in crude cabins or shacks provided by the owner or in barns and outbuildings on the premises. A majority of the cabins were one-room affairs, in which family groups of 8, 10, or a dozen might eat or sleep, or a couple of smaller families might double up. * * * A number of families were housed in barns along with the cattle or in barns from which the cattle had only recently been removed, leaving the dung or its smell."

The average annual family income for the two groups in the 81 families which were the subject of the study were, respectively, $597 ($101 per capita) per annum for the all-year workers and $341 ($53 per capita) for the "one croppers." It is understood that children are a part of the working force.

The "all-year" group of migrants derived a fourth of their income from strawberries; the one-cropper group less than one-tenth from

[1] Children in Strawberries, by Raymond G. Fuller. New York, National Child Labor Committee, 1940.

this crop. The all-year workers made a fifth of their income from cotton picking as migratory laborers; the one croppers, three-tenths of their income as local cotton laborers.

The all-year migrants obtained more than 20 percent of their income by working in other crops than strawberries and cotton on the road; the one-crop migrants, not quite a fifth by other work in cotton than picking, including the driving of the tractors that had dispossessed them from tenancy, and nearly a fifth by means of WPA jobs. Incidentally, a negligible number of the all-years go on relief or WPA. Other work by which the migrants, of both classes, increase their income is cutting firewood, sawing logs for lumber and railroad ties, housework and washing on the part of the women, digging sassafras, fishing, painting, hauling coal and wood, junking cars, making and peddling willow chairs, and so forth and so on ad infinitum.

The number of child workers in the family is considered in securing jobs both in the strawberry and cotton fields. Children are reported as "especially good at picking these crops. They are quick of movement and their fingers are nimble. In strawberries the older workers may crawl down the rows on hands and knees, but the youngsters can more easily stoop and reach the fruit. They are also excellent crawlers."

Of the 236 children under 16 years of age in these 81 migrant families, 163 worked regularly, including two 5-year old children and 5 who were 6 years of age. Practically all of the children who were 7 years of age and over were strawberry pickers. The working day of the children 12 to 15 years of age was the same length as that of their parents. However, the number of hours per day varied according to the crop's maturity, the market demand, and other circumstances.

Child laborers do not regularly attend school. Of the 173 children of elementary school age in the families studied, 59 percent had either never been to school or had completed only the first or second grade. Even among the children in the 12 to 15 years of age group, over one-third had only finished the first or second grade or had completed neither.

During the year previous to the investigation, 36 percent of the children of school age had not been to school at all, and the average number of weeks of attendance by those who were enrolled was only 17.2. If this attendance record keeps up, the author of the report declares, "it is reasonable to suppose that the children of the migrants will get even less schooling than their parents," whose median grade was 4.4.

In concluding his report the author declares that the migrant problem as such has barely been touched. In the South this problem, particularly as related to interstate migrants, has not yet reached the same magnitude as in the West, but it is increasing and "its urgency" he believes "is as great at this stage as it will be when its magnitude is greater."

Youth Problems

YOUTH ATTITUDES ON ECONOMIC PROBLEMS

IN THE course of interviewing some 20,000 young people in various parts of the United States in all walks of life, the American Youth Commission's agents endeavored to get at the "philosophies" of these young persons, as well as at facts concerning their living conditions.

The usual method employed to discover the mind of youth was to select a limited number of questions of current significance on such subjects as sex education, politics, and war, and ask the young people for their opinions. In the course of an article presenting an analysis of their replies,[1] Mr. Howard M. Bell, a member of the Commission's staff, declares that the "younger generation had ideas about things." On some problems, such as whether or not relief for the unemployed is a legitimate governmental responsibility, only 1 young person out of 40 had nothing to say. Even regarding more technical queries—for instance, whether or not wages should be regulated by the Government—only 1 young person in 8 was reported in the "no opinion" group.

Indeed, the young persons included in this study were, in general, quite conscious of a youth problem, and those who were conscious of it regarded it as fundamentally a problem of economic security.

In the judgment of the author of the article here referred to, the common consciousness of economic insecurity seems to explain in large part the responses received to certain other inquiries as to attitudes. For example, over a year before the regulation of wages and hours was provided for by a Federal law, the majority of the young people interviewed were in favor of such regulation. It was found that the young persons who were fortunate enough to hold jobs were working a median of 44 hours a week for a median wage of slightly under $13. Consequently, over 50 percent were receiving less than the proposed minimum of $16 per week for working more than the proposed weekly maximum of 40 hours at a minimum of 40 cents an hour.

It seems probable also that the preoccupation of youth with the matter of economic insecurity had its influence on their replies to

[1] High School Journal (issue devoted to the American Youth Commission), Chapel Hill, University of North Carolina, March 1940, pp. 107–108: Youth Think About Their Problems, by Howard M. Bell.

questions on public relief, child labor, the employment of married women, and allied subjects. Among the young people in the labor market only 3 in 5 were reported working full time. Of those who were so engaged another two-fifths regarded their jobs as "dead-ends," without hope of vocational advancement. In view of this situation, it might easily be expected that 90 percent of all the youth interviewed considered "provision of work relief, on a health and decency level, as a legitimate and desirable responsibility for the Government to assume." From their standpoint, anyone in need of a job and who desires a job should be furnished with work to prevent him from gradually becoming a "bum."

While the greater number of young people seemed to believe that some type of Government regulation of child labor was desirable, approximately half of them expressed the belief that children should be allowed to work in cases in which the family income was not sufficient to meet the needs of the family. Moreover, more than half of the young persons interviewed held that the family's economic need was the sole justification for the gainful employment of married women. This attitude also reveals an understandable mindfulness of the problem of economic security.

If these replies of youth seem to indicate a notable dynamic enthusiasm for the participation of government in social and economic activities, this is probably the outcome of the belief that government measures may often be successful where individual endeavor has failed. The responses of these young people disclose "a widespread suspicion of nondemocratic forms of government." A desire for a "new economic system" was voiced by only 1 young person in 20. From a study of the findings of the commission's survey, it seems quite clear, according to the report here reviewed, "that young people want nothing of fascism, communism, or any other 'ism.' What they want and what they have been taught they have a right to expect, is an opportunity to take their places in our economic scheme of things." In brief, they "have developed the praiseworthy notion that society owes them something more exciting than a park bench." The author of this article also holds that if private industry has no use for these young people, it is natural for them to look with hope to governmental action to open up opportunities for work, marriage, and home ownership.

LEGAL AID TO THE POOR IN SWITZERLAND

Certain decisions of the Federal Swiss Court on the matter of supplying legal aid to indigent litigants indicate a striking solicitude that justice be accorded to all poor citizens. The following references to these interpretations of constitutional rights are taken from an article on "Legal Aid to the Poor," by Sidney B. Jacoby, published in the Harvard Law Review of April 1940.

The Constitution of Switzerland contains no express provision on the problem of legal aid. It does not even include an explicit "due process" clause. However, on the basis of article 4 of that Constitution, which states that "all Swiss are equal before the law," the Federal Court of Switzerland takes the position that the respective cantonal courts must furnish comprehensive legal aid. The reasoning of the court was expressed most clearly in the case of *Hocker* v. *Obergericht Aargau*,[1] decided in 1931, which was concerned with a cantonal statute requiring "all persons to pay in advance the expenses of evidence to be taken by the court." This provision was declared unconstitutional by the Federal Court as being contrary to the rule of equality.

The language of this decision, which is given in part below, is "a persuasive commentary on the role of comprehensive legal aid in a country governed by constitutional principles of equality."

> Article 4 of the Federal constitution, viz, the principle of equality of the law, includes the equal right of all citizens to receive legal protection by the State for a civil claim alleged by them. * * * This right would not be preserved if in the case of poor persons the actions of the court or the performance of certain procedural acts were made dependent upon prior payment of court costs or expenses. Such regulation constitutes equal treatment of the citizens only in a superficial, apparent manner. Actually, poor persons are refused legal protection for the prosecution of a well-founded or, at least, not hopeless claim, because a condition is attached which the respective person is *a limine* unable to fulfill. This amounts to an unconstitutional discrimination of poor parties to a litigation as against wealthy ones. * * *

Maintaining that the right to legal aid is a constitutional right to the individual, the court declared:

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[1] 57 Entscheidungen des Schweizerischen Bundesgerichtes (Reports of the Swiss Federal Court), pt. 1, pp. 337, 343, et seq. (1931). These reports are hereafter abbreviated BGer.

> The principal of equality * * * constitutes a barrier not only for the branches of the government applying the laws, but also for the legislator. This holds true also with regard to subjects in which the lawmaking power in principle remains with the cantons. Such constitutional right, therefore, cannot be denied on the ground that the legislative competence of the cantons in the fields of court organization, court procedure, and judiciary, would be infringed upon.

The cases in which the Federal Court of Switzerland held it necessary to invalidate the cantonal provisions disclose the comprehensiveness of the system of legal aid which is considered requisite under the constitutional principle of equality. The practice of the Federal Court of Switzerland becomes more significant when it is recognized that even without judicial intervention the Swiss cantonal in forma pauperis laws, especially regarding civil matters, were more highly developed than the existing laws in many of our States.

The cantonal statute which was declared invalid in the Hocker case was held "to put the poor at a disadvantage in the conduct of the trial." Furthermore, according to the court, even a practice which would stay legal proceedings until the poor litigant had paid the cost would be an unconstitutional denial of justice, because this would violate the right of the poor person to prompt justice.

To bring an appeal without payment of costs was always regarded as a right of the poor under the Swiss Constitution. In the early case of *In re von Courten* (13 BGer. 251 (1887)) it was decided that a law making it necessary for a poor defendant to pay court costs for a criminal appeal was not reconcilable with the principle of equality and was diametrically opposed to the concept of justice. The right of appeal, on its face allowed to all citizens, would in fact not be available to the indigent. More pertinent still is the recent civil case of *Weiss* v. *Grauwiler* (60 BGer. pt. 1, p. 179 (1934)), in which it was decided that the payment of costs of appeal may not be required of poor persons, irrespective of whether they have made application for legal aid in the trial before the lower court, unless obviously no appeal lies in the case or unless the appeal clearly cannot succeed.

The right under the Swiss Constitution to obtain legal aid under certain conditions includes the right to the assignment of counsel by the State in cases in which a lawyer's services are required for the proper maintenance of the rights of the poor person.

PRISON-LABOR LEGISLATION, AS OF JUNE 1, 1940

Extent of Problem

THE problem of prison-labor competition is one which the Federal Government and the States have had to face for many years. The Federal Government realized the importance of the problem as early as 1885, when the Commissioner of Labor Statistics began the first survey to ascertain the extent of the competition that existed on the open market between prison-made goods and the products of free industry. Since that time studies have been made at intervals of approximately 10 years; the latest report dealt with conditions during the year 1932.[1]

The survey of 1932 showed the value of prison-made goods for that year to be $75,369,471. Only 38 percent ($28,949,908) of this amount, produced under the State account, piece-price, and contract systems, was destined for direct competition, as compared with the relatively large figure of about 62 percent of the total value produced in 1923. This survey also showed that in 1905 only 26 percent of the prisoners were employed at productive labor under the two State-use systems (State-use and public works and ways), whereas, during 1932, 65 percent of all prisoners engaged in productive labor were working for the State under these systems. In spite of the increased use of prison labor for the State, there has been a noticeable decline in the percentage of all prisoners engaged in production.

It is well known that prison administrators have a decided advantage over employers of free labor. Prisons do not have to meet usual production costs and should therefore be able to undersell any competitors. Work continues regardless of business fluctuations and, to a certain extent, is not dependent on the immediate market. The fixed overhead of prison industries is bound to be small, because housing, shelter, and food is of necessity supplied by the State and the payment of compensation is negligible.

The seriousness of the competition of prison labor was brought to light during the time that the National Industrial Recovery Act was in effect, when members of the cotton-garment industry, considering

[1] U. S. Bureau of Labor Statistics Bulletin No. 595.

the adoption of a 36-hour week, advanced as one reason for not being able to conform with the standards established by the act, the competition of prison contractors. Recognizing the importance of this factor, the Administrator, at the instance of the President, appointed a committee to consider the cotton-garment situation, and the problem of prison-labor competition in the open market generally. After the National Industrial Recovery Act was declared unconstitutional, the President, by Executive Order of September 26, 1935, created the Prison Industries Reorganization Administration to conduct, upon the invitation of, and in cooperation with, the States, surveys of industrial operations carried on by the State penal and correctional institutions, and to recommend plans for the reorganization of such prison industries. The order provided for a board of five members, to be known as the Prison Industries Reorganization Board. At the present date the Board has completed surveys of the prison-labor problem in Alabama, Arkansas, California, Delaware, District of Columbia, Florida, Georgia, Idaho, Indiana, Kansas, Kentucky, Maryland, Missouri, New Mexico, New York, Oklahoma, Oregon, Tennessee, Texas, Utah, Vermont, Virginia, and West Virginia.

Establishing prison industries does more than lighten the financial burden of the State, for it simplifies the task of the penal administrator in maintaining discipline, rehabilitating the imprisoned men, and equipping them with a trade that they may follow upon release. These benefits must be balanced against the possible disruption of the market for the products of free labor. It would seem therefore that the problems of prison-labor competition cannot be solved simply by prohibiting prisoners from working.

In an article on prison labor appearing in the November 1936 issue of the Monthly Labor Review, Mr. Gustav Peck, a member of the Prison Industries Reorganization Board, stated:

> It is an absolute impossibility to prevent competition completely if convicts are to be employed in any useful way, because there is almost nothing prisoners do or make which might not be done or made instead by free industry and labor. The economics of the problem are to reduce the competition to the lowest point and to plan production in such a way as to affect prices and wages as little as possible.

Another aspect of the prison-labor problem becomes apparent when it is considered in relation to interstate commerce. For years attempts by the States to regulate the sale of prison-made goods proved futile, legislation for this purpose being held invalid on constitutional grounds, especially when it concerned a shipment of goods in interstate commerce. In an early case [2] the New York Court of Appeals declared that the local statute which required all convict-made goods to be labeled was in conflict with the State constitution

[1] *People* v. *Hawkins*, 51 N. E. 257.

and therefore an unauthorized limitation upon the freedom of the individual to buy and sell, and that such regulation was not within the scope of the State police power. Again, in 1910, in the case of *Phillips* v. *Raney* (198 N. Y. 539), the New York Court of Appeals affirmed the decision of the lower court upon the authority of the case of *People* v. *Hawkins*, and referred to the conflict of the State law with the interstate commerce clause of the Federal Constitution. Courts in other States have reached similar conclusions to the effect that a State could regulate the sale of prison products made within its own prisons, but could not, without Congressional action, regulate the sale of convict-made goods imported from other States.

Federal and State Legislation

As a result of this general picture, leading labor and manufacturers' organizations repeatedly petitioned Congress for aid in meeting the competition of prison labor. It was not until 1929, when the Hawes-Cooper Act [3] was passed, that Congress enacted any legislation on this subject. This act divested prison-made goods of their interstate character and thereby subjected them to the laws of the State where they are offered for sale, irrespective of the place of origin. The act specified that it was not to take effect until 5 years later (January 19, 1934), in order to provide sufficient time for the reorganization and readjustment of the several prison industries. This law does not prohibit the interstate shipment of prison-made goods, but permits a State to impose *restrictions upon* such goods after they are transported into the State.

The States immediately began to avail themselves of the opportunities afforded by the Hawes-Cooper Act, with the result that legislation regulating the sale of prison-made goods is now in effect in 38 States.[4] Eleven of these States entirely prohibit the sale or distribution (including imports) of prison-made goods on the open market; [5] 20 States have general prohibitions with certain stated exceptions; and 7 States (as well as 4 of the preceding States) specifically prohibit the sale or distribution of imported prison-made goods. Some doubt exists as to the validity of laws prohibiting the sale or distribution only of imported prison-made goods because of their discriminatory nature. The Wisconsin Supreme Court in *State* v. *Whitfield* (257 N. W. 601), regarding a statute which required convict-made goods from other States to be labeled, held the act unconstitutional on the ground

[3] U. S. Code 1934, title 49, sec. 60.

[4] Arizona, Arkansas, California, Colorado, Connecticut, Florida, Georgia, Idaho, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, and Wisconsin.

[5] Although New Jersey, Pennsylvania, and Wyoming have no legislation restricting the sale of all convict-made goods on the open market, the administration provides for a closed market.

that it was a discriminatory use of the police power, since goods produced in Wisconsin were not required to bear a label.

States Having Laws Affecting Prison Labor and Sale of Prison-Made Goods

State	Prohibition of sale of goods—			Regulation		Use of prison labor permitted—	
	On open market (including imports)	With certain exemptions	Imported products specifically	Prison labor and manufacture of goods	Consumption of goods by State or political subdivisions	On roads	On public works
Alabama				X		X	X
Arizona	X			X	X	X	
Arkansas		X		X	X	X	
California		X		X	X	X	
Colorado	X			X	X	X	X
Connecticut		X		X	X	X	
Delaware				X		(1)	
Florida	X			X	X	X	
Georgia		X		X	X	X	X
Idaho	X			X	X	X	X
Illinois		X	X	X	X	X	(2)
Indiana		X	X	X	X	X	X
Iowa				X	X	X	X
Kansas		X		X	X	X	X
Kentucky	X			X	X	X	X
Louisiana		X		X		X	X
Maine			X	X		X	X
Maryland		X		X	X	X	X
Massachusetts		X		X	X	(3)	X
Michigan		X		X	X	X	
Minnesota			X	X		(4)	
Mississippi		X		X	X	X	X
Missouri				X	X	X	X
Montana		X	X	X	X	X	X
Nebraska		X		X	X	X	X
Nevada				X		X	X
New Hampshire	X		X	X	X	X	
New Jersey			X	X	X	X	X
New Mexico			X	X		X	X
New York	X			X	X	X	X
North Carolina		X		X	X	X	X
North Dakota				X		X	X
Ohio	X			X	X	X	X
Oklahoma		X		X	X	X	
Oregon		X		X		X	
Pennsylvania			X	X	X	X	X
Rhode Island	X			X	X	X	
South Carolina				X		X	X
South Dakota				X	X	X	X
Tennessee	X			X	X	X	
Texas			X	X	X	X	
Utah		X		X	X	X	
Vermont				X		(5)	
Virginia			X	X	X	X	X
Washington		X		X	X	X	
West Virginia	X			X		X	
Wisconsin		X		X	X	X	
Wyoming				X	X	(6)	

[1] No State penitentiary; all roads taken over by State in 1935. Therefore status of use of prisoners is uncertain.
[2] Prison labor not permitted beyond institution walls.
[3] Prison labor not permitted beyond institution walls, except for farming and reclamation.
[4] No provision; road material manufactured.
[5] Use of prison labor beyond institution walls is limited.
[6] No provision for State prisoners.

Seven States (Alabama, Delaware, Missouri, Nevada, South Carolina, Vermont, and Wyoming) do not regulate the sale of prison prod-

ucts, while three States (Iowa, North Dakota, and South Dakota) only require labeling and impose no other restrictions. The preceding tabulation, taken from a bulletin issued by the Prison Industries Reorganization Administration, shows the present status of State prison-labor legislation. The existence of regulations is indicated by "x"; in all other instances, no laws have been adopted to June 1, 1940.

The States have made use of varied measures in employing prison labor—the lease, contract, piece-price, State-account, State-use, and public-works-and-ways systems. For all practical purposes, the lease system is now officially discredited in both State and Federal prisons. The use of the remaining open-market systems (contract, piece-price, and State-account) has been widely objected to because they perpetuate and encourage competition with free labor. The elimination of the lease system and curtailment of prison employment generally have brought about the development of the State-use system, under which the sale of goods produced is limited exclusively to State departments and agencies, and the public-works-and-ways system under which prisoners are engaged in the construction and maintenance of public works, etc. Organized labor has taken an active part in aiding in the establishment of the State-use system, which at present is applied in 36 States.[6]

Constitutionality of Federal Legislation

The first decision by the United States Supreme Court relating to the constitutionality of the Hawes-Cooper Act was handed down in 1936 in the case of *Whitfield* v. *State of Ohio* (297 U. S. 431).[7] The complainant in this case, Asa H. Whitfield, sold shirts in Cleveland, Ohio, that had been manufactured in the Alabama Wetumpka prison. He was convicted by the Cleveland municipal court for violating the Ohio act which provided that no goods, wares, or merchandise manufactured or mined in any other State by convicts or prisoners should be sold on the open market in Ohio. The State court of appeals affirmed the decision of the lower court and a subsequent appeal was dismissed by the State supreme court, whereupon the case was carried to the Supreme Court of the United States to test the constitutionality of both the Ohio statute and the Hawes-Cooper Act.

In an opinion, delivered by Mr. Justice Sutherland, the Court upheld both acts. Concerning the State statute, the Court declared that it did not infringe the commerce clause of the Constitution, and that when prison-made goods were shipped into Ohio from

[6] Arizona, Arkansas, California, Colorado, Connecticut, Florida, Georgia, Idaho, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Mississippi, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, Tennessee, Texas, Utah, Virginia, Washington, and West Virginia.

[7] See Monthly Labor Review, April 1936 (p. 998).

Alabama and sold, the transportation had come to an end and the right of the State then became operative, whether the goods were still in the original package or not, since the restriction upon the State to regulate such goods was removed when Congress enacted the Federal prison-labor law. In considering the Hawes-Cooper Act, the Court pointed out that it did not constitute an unlawful delegation of congressional power to the State, and that the statute was constitutional, since all that it did was to allow the jurisdiction of the State to attach to any prison-made goods immediately upon entrance into the State.

The United States Supreme Court, in 1934, refused to grant permission to the attorney general of Alabama to file a bill challenging the statutes enacted by five States (Arizona, Idaho, Montana, New York, and Pennsylvania) under the authority granted in the Hawes-Cooper Act.[8] The complaint alleged that Alabama had relied on these five States for an annual disposal of approximately $76,000 worth of prison-made goods, and that losing its out-of-State market would necessitate the expenditure of about $1,000,000 in constructing plants for the production of goods to be used in State institutions and activities in order to keep prisoners employed. Mr. Justice Butler, in denying Alabama permission to file the petition, pointed out that the action was prematurely brought, as markets for prison-made products still existed in other than the five States named, and that Alabama had not proven she would suffer any serious injury because of the enforcement of the statutes in question.

Supplementary Prison-Labor Legislation

On July 24, 1935, the Ashurst-Sumners Act[9] went into effect. This law materially strengthened the Hawes-Cooper Act, and also supplemented State prison-labor laws. A maximum penalty of $1,000 was imposed on any person shipping prison-made goods into a State whose laws forbade the sale on the open market of such goods. It also provided that prison-made goods must be marked, showing the name and address of the shipper and the consignee, as well as the contents, and the name of the penal institution from which the goods were shipped.

The Ashurst-Sumners Act was held constitutional by the United States Supreme Court on January 4, 1937, in the case of *Kentucky Whip & Collar Co.* v. *Illinois Central Railroad Co.* (299 U. S. 334).

The case involved the Kentucky Whip & Collar Co., a firm which manufactured horse collars, harness, and strap goods with convict labor and marketed its products in various States. The company

[8] *Alabama* v. *Arizona et al.*, 291 U. S. 286. See Monthly Labor Review, March 1934 (p. 578).
[9] U. S. Code 1934, Supp. V, title 49, secs. 61–64.

had tendered to the Illinois Central Railroad Co. 25 separate shipments for transportation in interstate commerce, 10 of which were consigned to customers in States with laws prohibiting the sale of convict-made goods within their respective borders. Five other shipments were consigned to individuals in States which did not prohibit the sale of such goods, but required the articles to be plainly marked so as to indicate their place of origin, while the remaining 10 consignments were to be sent to States whose laws imposed no restriction on such goods. None of the shipments were labeled as required by the Ashurst-Sumners Act, and in compliance with the terms of the act the railroad company refused to accept the consignments, whereupon the manufacturer brought an action for a mandatory injunction to compel the transportation.

The Ashurst-Sumners Act was held invalid by the district court insofar as it prohibited transportation of prison-made goods into States which prohibited sale or possession of such goods, but the provision which required labeling was sustained. The circuit court of appeals upheld the act in its entirety. The manufacturer contended that Congress was without constitutional authority to prohibit the movement in interstate commerce of useful and harmless articles made by convict labor, and therefore had no power to exclude from interstate commerce prison-made goods not labeled as such.

Mr. Chief Justice Hughes, in delivering the opinion of the Court overruling the original decision, said that the power of Congress to regulate commerce "is complete in itself, may be exercised to its utmost extent, and acknowledges no limitations, other than are prescribed in the Constitution." He pointed out that the "question is whether this rule goes beyond the authority to regulate." In this regard several cases were cited in which the Court had previously upheld the power to prohibit interstate transportation of certain articles or commodities. Continuing, the Court stated that "where the subject of commerce is one as to which the power of the State may constitutionally be exerted by restriction or prohibition in order to prevent harmful consequences, the Congress may, if it sees fit, put forth its power to regulate interstate commerce so as to prevent that commerce from being used to impede the carrying out of the State policy," and the fact that Congress had adopted its rule to aid in the enforcement of valid State laws "affords no ground for constitutional objection." In conclusion Mr. Chief Justice Hughes held that the requirement that prison-made goods be labeled "was manifestly reasonable and appropriate for the carrying out of the prohibition."

At the third session of the Seventy-sixth Congress a bill (S. 3550) prohibiting the transportation of convict-made goods in interstate commerce was introduced. Pressure for such a bill was brought about, no doubt, by the failure of some few States to enact legislation

regulating the sale of prison-made goods, which resulted in loss to both free labor and free enterprise. The bill has been reported favorably by the Senate Committee on the Judiciary, but no legislation resulted.

RAILROAD LEGISLATION ON FULL CREW, PERSONNEL, AND TRAIN LENGTHS

IN THE early eighties, State railroad legislation in the United States began to develop with the increase in railroad mileage. These measures proceeded along the lines of providing proper protection for the traveling public and safeguards for the employees.

Two types of laws were enacted for the protection of travelers, the first relating to safety devices for the prevention of accidents and the second concerning qualifications of employees. Included in the measures adopted for the protection of employees were those requiring the maintenance of proper clearance around tracks; the installation of storm windows and cab curtains in engines, and various safety appliances; the blocking of frogs or switch points; and provisions as to the size, safety, and comfort of caboose cars.

The validity of State laws concerning the operation of railroads has often been contested on the ground that such regulations apply to interstate commerce and are, therefore, a subject for Federal legislation. The courts have, however, consistently held that the States were within their rights in passing such laws, if there was no conflicting Federal legislation, but that if a conflict existed the State legislation must give way. This view was stated by the Supreme Court of the United States in the case of *Erie R. R. Co.* v. *New York* (233 U. S. 671). In a more recent decision[1] the Supreme Court pointed out that State regulation of interstate commerce is invalid if in conflict with Federal regulation, or if the subject is one demanding uniformity of regulation, or where Federal regulation has already occupied the field. A recent South Carolina statute prohibiting the use on the State highways of certain motortrucks that exceeded a specified size and weight was upheld by the Supreme Court, when it was shown that the Congress of the United States had not undertaken to regulate the size and weight of motor vehicles in interstate commerce.[2] From these decisions, therefore, it may be concluded that State legislation is valid during the silence of Congress on the subject, but ceases to exist as to interstate commerce when Congress acts.

A brief summary of State laws relating to full crews, train lengths, and qualifications of personnel is presented in this article.[3]

[1] *Kelly* v. *Washington*, 302. U. S. 1.

[2] *South Carolina Highway Dept.* v. *Barnwell Bros.*, 303 U. S. 177.

[3] The complete text of these laws has been published in bulletin form and made available by the Brotherhood of Locomotive Firemen and Enginemen (Cleveland, Ohio).

Full Crews

Full-crew laws are now on the statute books of over 20 States. The majority of these statutes regulate the minimum number of employees required for the operation of different classes of trains, but the States of Connecticut, Maryland, Massachusetts, New Jersey, and West Virginia provide for a determination by the public utilities commission or similar agency. Massachusetts, in addition, provides for the regulation of brakemen. The laws of Maine and South Carolina apply only to brakemen, while in Louisiana the regulation applies to switching crews.

The railroads have strenuously opposed these laws, contending that the general improvement in the methods of handling trains has mitigated the need for larger crews. The trainmen, however, point out that the increase in the weight of trains has added to the strain upon railway employees and that full-crew legislation greatly reduces this physical strain and consequently reduces the frequency of accidents.

In 1911 the United States Supreme Court, in the case of *Chicago, Rock Island & Pacific Ry. Co.* v. *State of Arkansas* (219 U. S. 453), upheld the full-crew law of Arkansas enacted in 1907 (Act No. 116), which required railroads whose lines were not less than 50 miles in length to have at least three brakemen in every crew of freight trains of 25 cars or more. The action in this case was brought by the State and alleged that the railroad company had operated a freight train of more than 25 cars without the required number of brakemen. The company defended on the ground that the act conflicted with the fourteenth amendment and with the commerce clause of the United States Constitution. These objections were overruled by the Supreme Court of Arkansas and the law was held constitutional. This decision was affirmed by the United States Supreme Court. It was the opinion of the Court that the law should be taken as having been enacted, not in obstruction, but in aid, of interstate commerce "and for the protection of those engaged in such commerce." The Court pointed out that Congress had not legislated on the subject of full crews for interstate trains, and therefore the State statutes, "which really relate to the rights and duties of all within the jurisdiction, must control. This principle has been firmly established, and is a most wholesome one under our systems of government, Federal and State." In a later case,[4] decided April 3, 1916, the Supreme Court of the United States upheld a statute of Arkansas, passed in 1913 (Act. No. 67), which required not less than three helpers in switch crews in yards located in cities of the first and second classes operated by railroad companies having lines of at least 100 miles in length. In upholding the act, the Court compared this case with the previous one and

[4] *St. Louis, Iron Mountain & Southern Railway Co.* v. *Arkansas*, 240 U. S. 518.

declared that there was no distinction between the statutes as the principal object of both is public safety, although "the urgency in one may not be as great as the urgency in the other."

Both of these Arkansas statutes were again considered by the United States Supreme Court in the case of *Missouri Pacific R. R. Co.* v. *Norwood* (283 U. S. 249), the railroad company having filed an action to enjoin the enforcement of the statutes. The previous decisions upholding the constitutionality of the acts were referred to by the Court in an opinion by Mr. Justice Butler. The company, however, contended that conditions had changed since these decisions and that equipment had been improved to such an extent that longer and heavier trains could be operated more safely than smaller trains could be operated at the time of the former decisions. Furthermore, the company declared that the standard practice of railroads, except in the State of Arkansas, was to operate without the extra switchmen and brakemen required by the Arkansas statutes. In answering these contentions, the Court said that there was nothing to show that the dangers to the employees and the public had been lessened by the improvements in road and equipment, and that "the same or greater need may now exist for the specified number of brakemen and helpers in freight-train and switching crews." The Supreme Court took judicial notice of the fact that laws similar to the Arkansas act existed in other States, and stated that, "so far as constitutionality is concerned, the facts alleged are not sufficient to distinguish this case from those in which this Court has sustained these laws."

The railroad company also alleged that Congress, by the Interstate Commerce Act, as amended in 1920, had authorized the Interstate Commerce Commission to regulate the number of brakemen and helpers. The Supreme Court, however, after considering the provisions of the act, concluded that Congress had not delegated such authority to the Commission, and therefore affirmed the decree of the lower court dismissing the case.

In a decision rendered on November 27, 1939,[5] the Supreme Court of Pennsylvania declared the full-crew law of that State, which required the placing of an extra brakeman on every passenger train having more than 5 cars, and on freight trains of more than 50 cars, to be unconstitutional as applied to the Pennsylvania Railroad Co. The court, however, did not rule upon the constitutionality of the law as affecting other railroads. The case had been before the court in 1938 (198 Atl. 130), but was remanded to the lower court since all the parties to the case had not been heard.

The court was of the opinion that the law deprived the railroad of its property in violation of the State constitution, but that it did not

[5] *Pennsylvania R. R. Co.* v. *Driscoll*, 9 Atl. (2d) 621.

violate the commerce clause of the United States Constitution. The court also declared that the alleged danger of accidents without such legislation was highly speculative, and concluded that the resultant effectiveness of such a law under these circumstances, "could only be out of all reasonable proportion to the cost involved."

The Circuit Court of Appeals for the Eighth Circuit recently declared that a railroad which employed as brakeman a colored man designated as "brakeman and porter" had sufficiently complied with the Nebraska full-crew law.[6] This law required all trains of more than 5 cars to have a crew of not less than one engineer, one fireman, one conductor, one brakeman, and one flagman, and those of less than 5 cars to have a crew of one engineer, one fireman, one conductor, and one brakeman or flagman.

In holding that the railroad corporation had complied with the law, the court pointed out that the colored men classified as "brakeman-porter" had passed all mental and physical requirements set up for the qualification of brakemen and flagmen, and that in addition to performing the brakeman's work, they also worked as porters when their other duties permitted. The court also observed that the act "is a safety measure and not one primarily in the interest of any particular employees or class of employees," and, in conclusion, held that the railroad had complied "with both the letter and the spirit of the act."

The Congress of the United States has considered the enactment of a Federal full-crew law several times. A bill of this kind (S. 59, 74th Cong., 1st sess.) was introduced in the Senate of the United States in 1935. This bill required that all common carriers by railroad engaged in interstate or foreign commerce should be manned with competent employees on all locomotives, trains, and other self-propelled engines or machines, and also prescribed the least number of men that may be employed on such locomotives, etc., and the qualifications of the employees. To date no Federal legislation has resulted.

Train Lengths

Due to the belief that the matter of regulating train lengths should be left to Congress, since many of the trains operating in the United States cross State lines, attempts to secure State legislation on the subject have met with little success. At present this type of legislation exists in only four States (Arizona, Louisiana, Nevada, and Oklahoma).

The first law limiting the number of cars in a railroad train was enacted by Arizona in 1912, followed by Louisiana in 1916, Nevada in 1935, and Oklahoma in 1937. All of the laws limit the number of freight cars in a train, and, in addition, the laws of Arizona and Louisiana limit passenger trains to 14 cars and 16 cars, respectively.

[6] *Beal* v. *Missouri Pac. R. Corporation in Nebraska*, 108 Fed. (2d) 897.

On March 8, 1933, in the case of *Atchison, Topeka & Santa Fe Ry. Co.* v. *La Prade* (2 Fed. Supp. 855), the United States District Court for the District of Arizona held the Arizona train-length law invalid. The court stated that the subject "is national in its character, requiring uniformity of regulation and that the power to so regulate is exclusively conferred upon Congress by the commerce clause of the Constitution."

In 1937, the District Court of the United States for the District of Nevada held that the railroad was entitled to enjoin the enforcement as to interstate commerce of the Nevada law limiting train lengths.[7] Court orders have also been granted in Louisiana and Oklahoma restraining the enforcement of the train-length laws.[8]

Bills limiting the length of trains have been introduced in the Congress of the United States from time to time, and in 1935 hearings were partially held on the proposed legislation. A bill (S. 69), known as the train-length bill, was introduced in the first session of the Seventy-fifth Congress. This bill limited the length of freight or other trains, exclusive of caboose, to 70 cars. The bill was passed by the Senate on July 22, 1937, and on January 11, 1938, the House Committee on Interstate and Foreign Commerce began hearings on the bill, but no legislation has resulted.

Qualifications of Personnel

Seventeen States[9] have enacted legislation concerning the qualifications of persons engaged in the operation of railroad trains. Some of these laws require a specified number of years' experience, while others provide for an examination as to the capacity of the employees to fill the position. In addition to providing for an examination, the Alabama statute provides for an inquiry into the employees' moral character and reputation and also their sobriety and previous record. In a number of the States the employees must be able to read, write, and speak the English language, while Minnesota, Nevada, and Washington specify that an engineer must be able to read time tables and ordinary handwriting. The laws of Alabama, Massachusetts, and Ohio require examinations for color blindness.

In an early case,[10] decided January 30, 1888, the United States Supreme Court upheld the Alabama statute which required locomotive engineers to be examined and licensed by a board. The Court was of the opinion that the act was not in its nature a regulation of interstate commerce, and that it was "within the scope of the ad-

[7] *Southern Pacific Co.* v. *Mashburn, Attorney General*, 18 Fed. Supp. 393.

[8] See testimony (p. 470), Hearings before the Committee on Interstate and Foreign Commerce, House of Representatives, (75th Cong., 3d sess.).

[9] Alabama, Arizona, California, Georgia, Idaho, Indiana, Massachusetts, Michigan, Minnesota, Nevada, New York, North Dakota, Ohio, Oregon, Pennsylvania, Washington, and Wisconsin.

[10] *Smith* v. *Alabama*, 124 U. S. 465.

mitted power reserved to the State to regulate the relative rights and duties of persons being and acting within its territorial jurisdiction, intended to operate so as to secure for the public, safety of person and property." It was further observed by the Court that the act did not hinder transactions of commerce among the States as it only affected them "indirectly, incidentally, and remotely."

Later, in the case of *Nashville, Chattanooga & St. Louis Ry.* v. *Alabama* (128 U. S. 96), the Supreme Court of the United States upheld an Alabama statute which required certain railroad employees to be examined for color blindness. In referring to the previous case, the Court said that the State could require an examination as to an employee's fitness in some one particular, as well as to his general fitness. The Court further observed that "color blindness is a defect of a vital character in railway employees in the various capacities mentioned." The Court also declared that, so far as the law affected interstate commerce, it was within the competency of the State to provide against accidents until the Congress legislated on the subject.

A Texas statute which prescribed qualifications for conductors on railroad trains was considered also by the United States Supreme Court in the case of *Smith* v. *Texas* (233 U. S. 630). This act, passed in 1909, prohibited any person from acting as a conductor on a railroad train without having worked as a conductor or brakeman on a freight train for 2 years prior thereto. The Court in this case held the statute invalid, in that, in prescribing no other qualifications, it excluded "the whole body of the public, including many railroad men, from the right to secure employment as conductor on a freight train."

From the observations that have been presented, it is therefore evident that the State laws exist merely by way of sufferance, in their application affecting interstate commerce. Only where Congress has not preempted the field will legality be extended to State laws and regulations affecting the operation of the railroads of the Nation.

COURT DECISIONS OF INTEREST TO LABOR

Applicability of Antitrust Law to Labor Unions

THE United States Supreme Court, in a far-reaching decision of importance to labor, has ruled that the Sherman Antitrust Act is not applicable to a sit-down strike in a factory in which materials imported from other States were used and in which goods were manufactured for interstate shipment. However, the majority opinion, which was delivered by Mr. Justice Stone, denied the contention of organized labor that it was wholly excluded from prosecution under this act. Instead, the Court ruled that the words of the antitrust act do embrace to some extent and in some circumstances labor unions and their activities.

The decision of the Supreme Court upheld a ruling of the United States Court of Appeals for the Third Circuit, which set aside a judgment of a lower court. This judgment required the American Federation of Full-Fashioned Hosiery Workers to pay more than $700,000 in triple damages to the Apex Hosiery Co., because of damages to property and loss of business during a sit-down strike.[1] The decision against the union in the lower court placed damages to the company at $237,210.85. Under the Sherman Antitrust Act it became mandatory for the court to triple the award, to the figure of $711,632.55.

Mr. Justice Stone, in holding that the Apex Co. could not recover damages under the Sherman Act, declared that restraint of interstate commerce which, as in this case, is effected by the seizure of a factory by sit-down strikers and their interference with the interstate movements of its products, is not the type of restraint contemplated by the act. The statute is applicable, he said, only to combinations and conspiracies entered into for the purpose of interfering with free competition in business and commercial transactions tending to restrict production, raise prices, and otherwise control the market to the detriment of purchasers or consumers.

This construction of the statute was held to be supported by its legislative history, as well as being in conformance with earlier decisions of the Supreme Court, as the act has never been applied to labor organizations or activities "unless the Court was of the opinion that there was some form of restraint upon commercial competition." In this connection, Mr. Justice Stone pointed out that the Court has "refused to apply the Sherman Act in cases like the present in which local strikes conducted by illegal means in a production industry prevented interstate shipment of substantial amounts of the product, but in which it was not shown that the restrictions on shipments had operated to restrain commercial competition in some substantial way."

Mr. Chief Justice Hughes, joined by Mr. Justices McReynolds and Roberts, dissented from the decision of the majority. The Chief Justice declared that the act should be construed to cover restraints by labor, since labor disputes have been held to affect interstate commerce in decisions relating to the National Labor Relations Act. He also was of the opinion that the Supreme Court should apply the Sherman Act in conformity with all its provisions, since the Court had agreed that the act did not except labor unions. (*Apex Hosiery Co.* v. *Leader.*)

[1] *Leader* v. *Apex Hosiery Co.* (108 Fed. (2d) 71). For lower court decision, see Monthly Labor Review June 1939 (p. 1335).

Antipicketing Laws Held Unconstitutional

THE United States Supreme Court in two important decisions recently held invalid an Alabama antipicketing statute and a similar ordinance of Shasta County, Calif. The decisions were based on the ground that the prohibition of peaceful picketing violated the fourteenth amendment to the Constitution, which guarantees free speech and a free press.

The statute of Alabama prohibited picketing for the purpose of interfering with any lawful business, and outlawed loitering without a just cause or legal excuse. By virtue of this statute a person was convicted and fined $100, which conviction was upheld by the Alabama courts.

In this case (*Thornhill* v. *State of Alabama*, 60 Sup. Ct. 736) the United States Supreme Court, speaking through Mr. Justice Murphy, held that the State statute abridged the rights of free speech and press, and declared that "the safeguarding of these rights to the ends that men may speak as they think on matters vital to them and that falsehoods may be exposed through the processes of education and discussion is essential to free government." The disclosure of information concerning the facts of a labor dispute, the Court said, "must be regarded as within that area of free discussion that is guaranteed by the Constitution." Again, it declared that "satisfactory hours and wages and working conditions in industry and a bargaining position which makes these possible have an importance which is not less than the interest of those in the business or industry directly concerned."

The Court also held that the statute could not be sustained as an exercise of the State's police power to preserve the peace and to protect the privacy, the lives, and the property of its residents. The Court, however, agreed that the State is empowered to preserve the peace, but denied that a breach of peace resulted whenever a person, as in this case, "approaches the premises of an employer and publicizes the facts of a labor dispute involving the latter."

The California case (*Carlson* v. *People of the State of California*, 60 Sup. Ct. 746) involved an ordinance of Shasta County which made it unlawful to engage in picketing, or to carry or display a banner in the vicinity of any place of business for the purpose of inducing any person to refrain from purchasing merchandise or performing labor. As in the Alabama case, the United States Supreme Court based its decision on the ground that the ordinance abridged the constitutional guaranties of free speech and press.

In this case Mr. Justice Murphy pointed out that "the sweeping and inexact terms of the ordinance disclose the threat to freedom of speech inherent in its existence." The carrying of signs and banners, no less than the raising of a flag, he said, is a natural and appropriate

means of conveying information on matters of public concern. Again, the Justice declared that "publicizing the facts of a labor dispute in a peaceful way through appropriate means, whether by pamphlet, by word of mouth or by banner, must now be regarded as within that liberty of communication which is secured to every person by the fourteenth amendment against abridgment by a State." Mr. Justice McReynolds dissented in both of these cases.

Order Requiring Reinstatement of Steel Strikers Sustained

As an outgrowth of the so-called "Little Steel" strike in 1937, the National Labor Relations Board on October 18, 1938, held that the Republic Steel Corporation had been guilty of unfair labor practices and ordered the reinstatement of employees with back pay. On November 8, 1939, the United States Circuit Court of Appeals for the Third Circuit upheld the ruling of the Board and enforced its order with some modifications.[1] The United States Supreme Court (60 Sup. Ct. 806) recently declined to review the decision of the Circuit Court, and by its refusal to act, sustained the lower court ruling.

The decision of the Circuit Court upheld the findings of the National Labor Relations Board that the employer had engaged in unfair labor practices by dominating and contributing support to employee-representation plans and associations, as well as the Board's order requiring the disestablishment of these labor organizations. The order of the Board also required the Republic Steel Corporation to reinstate about 5,000 employees in their former jobs and to give them back pay. This part of the order was affirmed by the Circuit Court, except as to about 40 employees who had been found guilty of serious acts of violence. In addition, the Circuit Court upheld the Board's order directing the employer to cease discouraging membership in the Steel Workers Organizing Committee or any other labor organization.

One of the provisions of the order required the company to reimburse relief agencies for amounts received by employees from these agencies during the period that they were unemployed. After the Supreme Court refused to review the decision of the lower court in this case, two circuit courts of appeals held similar provisions in orders of the National Labor Relations Board to be invalid, and as a result of this conflict the Supreme Court, on May 20, 1940, agreed to review the Board's order insofar as it required the company to make payments to relief agencies.

[1] *Republic Steel Corporation* v. *National Labor Relations Board*, 107 Fed. (2d) 472.

Employer Convicted of Evading New York Home-Work Law

In a recent case decided by the court of special sessions of the City of New York,[2] an employer was found guilty of violating the industrial home-work law. The court ruled that the employer, who was the proprietor of a factory engaged in manufacturing infants' hats, had created "a scheme or device to evade and circumvent the beneficent purposes" of the law.

Briefly, the facts in the case were that the employer furnished a woman who knitted infants' hats in her home with the names of persons from whom she could purchase wool on credit. After purchasing this wool she knitted and sold the hats to the manufacturer, although she had not obtained a certificate as required by the home-work law. The employer contended that the law did not apply to the relationship between him and the home worker, as she "was not a home worker within the contemplation" of the law. The court, however, was of the opinion, that the defendent had violated the act, as "the testimony indicates * * * that the scheme here devised by the defendant was promulgated for the purpose of evading the law relating to industrial home work." For this reason, the court imposed a fine of $50 upon the employer.

Further efforts to eliminate the evils of home work in New York have been made by the courts recently. An order prohibiting home work in the artificial flower and feather industry was upheld by the State supreme court, as was also the constitutionality of this type of law, in the case of *Dote* v. *Department of Labor.*

Death Superinduced by Lowered Resistance Following Accident Held Compensable

The Supreme Court of Michigan has held that the death of an employee due to "lowered resistance" resulting from an accidental injury was compensable under the State workmen's compensation law. The employee sustained an injury to his finger which necessitated amputation, the operation requiring the use of ether and gas. Two weeks later the employee died of bronchial pneumonia. A question arose as to whether the accidental injury accelerated the death. The department of labor advanced the opinion that the employee suffered constant pain and that the accident caused loss of sleep and diminished food intake.

Compensation was awarded on the ground that there were indications of a lowered resistance attributable to the accidental injury, and upon this conclusion the high court of the State affirmed the award. (*Brief* v. *General Concrete Const. Co.*, 290 N. W. 895.)

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[2] *People ex inf. Miller* v. *Famous Infants Knitwear Corporation*, 18 N. Y. Supp. (2d) 167.

Injury Caused by Hurricane Held Compensable

Perhaps the most important workmen's compensation decision in recent years was rendered on March 27, 1940, by the Supreme Judicial Court of Massachusetts. In fact, this case was the first in which a court of that State had been called upon to decide whether an injured employee, who was the victim of an unprecedented tropical storm that struck New England in September 1938, was entitled to benefits under the workmen's compensation act. The employee was injured by the collapse of a wall of a factory during the hurricane. A single member of the State department of industrial accidents and the reviewing board awarded compensation for total disability. The superior court dismissed the claim. The high court of the State, however, ruled that the injury arose out of his employment, even though the force that caused the collapse of the wall was not related to the employment.

In making this ruling, Mr. Justice Lummus pointed out that for an injury to arise out of employment "it need not arise out of the nature of the employment," but only out of the nature, conditions, obligations, or incidents of the employment, or out of employment looked at in any of its aspects. Thus, the court said that "an employee who, in the course of his employment, is hurt by contact with something directly connected with his employment, receives a personal injury arising out of his employment, even though the force that caused the contact was not related to his employment," was nevertheless covered by the act. The court remarked that there were decisions denying compensation under similar circumstances "unless special exposure to the danger is shown." Mr. Justice Lummus, however, was unable to follow these decisions, and therefore held to his ruling and awarded compensation. (*Caswell's Case*, 26 N. E. (2d) 328.)

Housing

TENANT SELECTION FOR FEDERAL HOUSING PROJECTS

MANAGEMENT problems, especially those connected with tenant selection, become more important as the number of Federal projects that are ready for occupancy increases. To insure the best possible selection of tenants, rental offices are often established well in advance of the completion of buildings. Although local housing authorities are responsible for selecting occupants for the low-rent dwellings in their respective jurisdictions and may adopt different methods of accomplishing their task, they must conform with the requirements of the United States Housing Act of 1937 as to the suitability of families to live in subsidized dwellings. This act stipulates that only families in the lowest income group, living under housing conditions definitely detrimental to safety, health, and morals, may be admitted as tenants.[1]

Eligibility

In determing substandard living conditions, consideration must be given to factors such as lack of plumbing, inadequate light and ventilation, and the existence of fire hazards in the unit from which a family wishes to move, but there are other conditions that may make an acceptable dwelling substandard for a given family, among which are overcrowding in the unit. In an unknown number of cases the dwellings they leave may be suitable for tenancy by other families.

In drafting the housing law no mention was made of what constitutes low income. The United States Housing Authority therefore established its own criteria for measurement. For its purposes, the population has been divided into three groups. Families having less than $1,000 a year are classified in the lowest one-third, those having $1,000 to $1,750 in the middle group, and those with $1,750 and over in the upper third. Roughly, the field for tenant selection is among families in the lower third. Depending upon local conditions, families may be chosen from income groups well below this maximum. In other areas and depending upon peculiar circumstances, it may be

[1] Data are from U. S. Housing Authority: Suggested Procedures for Initial Tenant Selection and Renting, Washington, 1940 (Bull. No. 31); Public Housing, April 23, 1940; and personal interview.

advisable to accept families with a slightly larger income, by reason of high local living costs or because of the relatively large size of individual families.

These examples show the need for careful study and sound judgment in applying the terms of the housing law. Once families are chosen the problem is not settled, however, as changes in composition or income may render a family ineligible to remain in the dwelling to which it has been assigned or even in the project. A well-planned project will have units of varying size so that families in which death occurs or parents whose children grow up and leave home may be moved to suitable accommodations.

Housing-Site Residents

Good practice requires that former site residents shall be given preference in the choice of project residents, provided they meet the requirements for residence.

The tenant-selection standards applicable to two large new projects which were expected to open on June 15 provided that former site residents should be given first choice, if eligible as to income, followed by families living in fire traps or in houses without private toilets. The remaining units, it was stated, would be assigned to families living under the worst housing conditions.

To facilitate rehousing on the site it is desirable to keep records of the former occupants and their new addresses. The policy of local authorities in this connection is exemplified by action of the local housing authority in a New Jersey city. Ten families who lived in the slum area on which the project was erected received first preference when construction was completed, having been temporarily located during the period of construction. On the average, each family now pays $14.03 monthly in shelter rent as compared with an average of $18.30 for their former slum dwelling. Formerly they averaged 4 rooms per family as compared with an average of slightly under 5 rooms in the USHA project.

It is still too early to secure inclusive statistics as to the proportion of site residents rehoused in public projects. Estimates received by the USHA from two southern cities indicate that 50 and 65 percent of the former residents, respectively, will be rehoused in their projects.

Obviously, not all site residents will be eligible to live in the public housing projects. Some families have incomes that are too large. For others the apartments are too small. Sometimes site dwellers are home owners and buy elsewhere upon removal. Single persons living on a site must be cared for outside. In assisting families to secure accommodations, it is customary to help those who are eligible for occupancy in the project to obtain temporary housing during the

construction period. More permanent accommodations are sought for other families. To minimize the amount of temporary housing that must be found, one housing authority allowed 12 buildings to remain standing and tenanted on a project site during the construction period. The families who stayed in these dwellings were later moved into the completed project and the old buildings were then torn down.

Industrial Disputes

TREND OF STRIKES

STRIKE activity in April 1940 was at a substantially higher level than in any of the 3 preceding months of the year. As compared with March there were, according to preliminary estimates, increases of 50 percent in number of strikes, 83 percent in number of workers involved, and about 20 percent in man-days of idleness.

Trend of Strikes, 1933 to April 1940 [1]

Year and month	Number of strikes					Workers involved in strikes		Man-days idle during month or year
	Continued from preceding month	Beginning in month or year	In progress during month	Ended in month	In effect at end of month	Beginning in month or year	In progress during month	
1933	.....	1,695	.....	.....	.....	1,168,272	.....	16,872,128
1934	.....	1,856	.....	.....	.....	1,466,695	.....	19,591,949
1935	.....	2,014	.....	.....	.....	1,117,213	.....	15,456,337
1936	.....	2,172	.....	.....	.....	788,648	.....	13,901,956
1937	.....	4,740	.....	.....	.....	1,860,621	.....	28,424,857
1938	.....	2,772	.....	.....	.....	688,376	.....	9,148,273
1939	.....	2,613	.....	.....	.....	1,170,962	.....	17,812,219
1939								
January	120	203	323	184	139	51,159	72,427	513,460
February	139	204	343	204	139	68,252	88,267	553,138
March	139	210	349	199	150	43,337	64,660	618,147
April	150	281	431	255	176	396,166	425,748	4,902,238
May	176	258	434	272	162	95,239	457,407	3,547,868
June	162	245	407	269	138	62,534	127,474	958,127
July	138	251	389	216	173	175,542	211,548	1,168,382
August	173	275	448	272	176	79,670	118,772	1,101,419
September	176	197	373	222	151	36,846	103,538	892,485
October	151	205	356	217	139	106,628	139,608	1,508,120
November	139	178	317	201	116	43,239	130,341	1,664,574
December	116	106	222	128	94	12,350	37,122	384,261
1940								
January	94	102	196	110	86	24,009	38,356	232,270
February	86	132	218	119	99	27,756	36,214	286,619
March [1]	99	151	250	150	100	23,000	44,000	400,000
April [1]	100	225	325	195	130	42,000	56,000	475,000

[1] Strikes involving fewer than 6 workers or lasting less than 1 day are not included in this table nor in the following tables. Notices or leads regarding strikes are obtained by the Bureau from more than 650 daily papers, labor papers, and trade journals, as well as from all Government labor boards. Letters are written to representatives of parties in the disputes asking for detailed and authentic information. Since answers to some of these letters have not yet been received, the figures given for the late months are not final. This is particularly true with regard to figures for the last 2 months, and these should be considered as preliminary estimates.

April strike activity, in spite of the upward trend, however, was far below the level of April a year ago, when the general bituminous-coal stoppage occurred. In April 1940 there were only 80 percent as

many strikes as in April 1939, 11 percent as many workers involved, and only 10 percent as many man-days of idleness.

The figures given in the foregoing table for March and April 1940 are preliminary estimates, based on newspaper reports and other information available as this goes to press. An analysis of strikes in each of these months, based on detailed and verified information, will appear in subsequent issues of the Monthly Labor Review.

STRIKES IN FEBRUARY 1940[1]

THE number of strikes beginning in February was greater than in the 2 months immediately preceding but smaller than in any of the months of 1939, except December. Detailed information has been obtained by the Bureau on 132 strikes involving more than 27,000 workers. These, with 86 which continued into February from preceding months, made a total of 218 strikes in progress during the month. More than 36,000 workers were involved in these disputes, and as a result there were 286,000 man-days of idleness during the month. There were no extremely large strikes in February. The largest dispute of the month was the strike of South Atlantic Coast longshoremen which involved about 4,500 workers and lasted from February 25 to March 13.

The industry groups with the greatest number of new strikes in February were retail and wholesale trade (19), lumber (14), domestic and personal service (13), and textiles (12). Of the 27,700 workers involved in strikes beginning in February, the largest number were in the following industry groups: Transportation and communication (4,855), iron and steel (3,783), textiles (3,092) and stone, clay, and glass (2,783). The most man-days idle because of strikes in February were in the stone, clay and glass industry (28,978), lumber and allied products (27,735), leather and its manufactures (27,381), and transportation equipment manufacturing (25,090). (See table 1.)

New York, with 40 strikes, and Pennsylvania, with 16, had more new strikes in February than any other States. There were 8 each in Michigan and Illinois and 6 each in California, Massachusetts, and Ohio. The States having the greatest number of workers involved in new strikes were Pennsylvania (5,851), New York (2,776), Massachusetts (2,768), and Illinois (2,130). The most man-days of idleness because of strikes during the month were in Pennsylvania (37,859), New York (36,440), Illinois (34,935), and Virginia (20,231). (See table 2.)

[1] Detailed information on a few strikes has not yet been received. (See footnote to preceding table.) Data on missing strikes will be included in the annual report.

TABLE 1.—*Strikes in February 1940, by Industry*

Industry	Beginning in February		In progress during February		Man-days idle during February
	Number	Workers involved	Number	Workers involved	
All industries	**132**	**27,756**	**218**	**36,214**	**286,619**
Iron and steel and their products, not including machinery	**7**	**3,783**	**11**	**4,315**	**24,637**
Blast furnaces, steel works, and rolling mills	2	2,932	2	2,932	11,292
Cast-iron pipe and fittings			1	280	5,600
Hardware	1	231	1	231	2,541
Plumbers' supplies and fixtures	1	411	1	411	411
Steam and hot-water heating apparatus and steam fittings			1	21	336
Stoves			2	231	3,444
Tin cans and other tinware	1	80	1	80	800
Tools (not including edge tools, machine tools, files, and saws)	1	101	1	101	101
Other	1	28	1	28	112
Machinery, not including transportation equipment	**7**	**813**	**15**	**1,713**	**20,812**
Agricultural implements	1	365	3	550	4,416
Cash registers, adding machines, and typewriters	1	208	1	208	2,080
Electrical machinery, apparatus, and supplies	2	42	4	237	2,404
Foundry and machine-shop products	1	25	4	529	10,435
Radios and phonographs			1	16	16
Other	2	173	2	173	1,461
Transportation equipment	**5**	**1,892**	**8**	**2,207**	**25,090**
Automobiles, bodies and parts	2	118	5	433	3,366
Cars, electric- and steam-railroad	2	1,502	2	1,502	19,548
Other	1	272	1	272	2,176
Nonferrous metals and their products			1	120	360
Smelting and refining—copper, lead, and zinc			1	120	360
Lumber and allied products	**14**	**2,693**	**18**	**3,323**	**27,735**
Furniture	8	1,487	10	1,632	11,681
Millwork and planing			1	240	480
Sawmills and logging camps	5	750	5	750	5,900
Other	1	456	2	701	9,674
Stone, clay, and glass products	**2**	**2,783**	**5**	**3,170**	**28,978**
Brick, tile, and terra cotta			1	243	2,916
Glass	2	2,783	2	2,783	23,902
Marble, granite, slate, and other products			1	40	80
Other			1	104	2,080
Textiles and their products	**12**	**3,092**	**22**	**3,670**	**20,999**
Fabrics:					
Cotton goods	2	278	2	278	1,058
Dyeing and finishing textiles	1	558	1	558	1,260
Silk and rayon goods			2	319	1,177
Wearing apparel:					
Clothing, men's	1	22	1	22	176
Clothing, women's	4	859	10	1,053	10,697
Hats, caps, and millinery	4	1,375	4	1,375	5,331
Knitgoods			1	38	760
Other			1	27	540
Leather and its manufactures	**2**	**831**	**5**	**1,919**	**27,381**
Boots and shoes	1	728	1	728	5,824
Leather			1	61	605
Other leather goods	1	103	3	1,130	20,952
Food and kindred products	**8**	**981**	**9**	**1,063**	**6,854**
Baking	1	50	2	132	2,590
Beverages	1	7	1	7	56
Canning and preserving	1	270	1	270	810
Confectionery	2	512	2	512	2,085
Slaughtering and meat packing	3	142	3	142	1,313
Tobacco manufactures			1	25	500
Cigars			1	25	500

TABLE 1.—*Strikes in February 1940, by Industry*—Continued

Industry	Beginning in February		In progress during February		Man-days idle during February
	Number	Workers involved	Number	Workers involved	
Paper and printing	8	399	13	562	6,603
Boxes, paper	1	200	3	316	4,288
Paper and pulp	1	81	1	81	1,215
Printing and publishing:					
Book and job	5	104	7	143	912
Newspapers and periodicals			1	8	160
Other	1	14	1	14	28
Chemicals and allied products	2	453	3	513	8,539
Paints and varnishes			1	60	720
Other	2	453	2	453	7,819
Miscellaneous manufacturing	2	247	6	574	6,963
Electric light, power, and manufactured gas	1	223	1	223	1,561
Furriers and fur factories			1	226	4,520
Other	1	24	4	125	902
Extraction of minerals	4	1,662	6	2,127	8,961
Coal mining, anthracite	2	1,457	2	1,457	3,926
Coal mining, bituminous	2	205	3	630	3,875
Metalliferous mining			1	40	1,160
Transportation and communication	10	4,855	18	5,351	23,669
Water transportation	3	4,605	6	4,725	21,482
Motortruck transportation	3	77	5	405	1,405
Motorbus transportation	1	6	2	30	102
Taxicabs and miscellaneous	3	167	4	181	670
Radio broadcasting and transmitting			1	10	10
Trade	19	1,463	29	1,936	13,352
Wholesale	7	643	13	951	7,030
Retail	12	820	16	985	6,322
Domestic and personal service	13	398	18	632	6,734
Hotels, restaurants, and boarding houses	9	195	11	217	1,340
Laundries	2	165	4	225	1,695
Dyeing, cleaning, and pressing			1	152	3,648
Elevator and maintenance workers (when not attached to specific industry)	2	38	2	38	51
Professional service	3	74	6	241	4,423
Recreation and amusement	2	43	4	179	3,307
Professional	1	31	1	31	372
Semiprofessional, attendants, and helpers			1	31	744
Building and construction	11	493	18	1,445	5,925
Buildings, exclusive of PWA	8	457	12	718	4,121
All other construction (bridges, docks, etc., and PWA buildings)	3	36	6	727	1,804
Agriculture and fishing	2	810	3	1,160	17,150
Fishing	2	810	3	1,160	17,150
Other nonmanufacturing industries	1	34	3	148	934

Seven of the 132 strikes beginning in February extended across State lines. The largest of these was the strike of longshoremen against coastwise shippers in southeastern ports which was in progress from February 25 to March 13 and a strike in the flat-glass industry early in the month, which affected glass plants in Pennsylvania and West Virginia.

TABLE 2.—*Strikes in February 1940, by States*

State	Beginning in February		In progress during February		Man-days idle during February
	Number	Workers involved	Number	Workers involved	
All States	132	27,756	218	36,214	286,619
Alabama	1	25	2	665	1,165
California	6	801	15	1,247	16,245
Connecticut			1	202	1,010
District of Columbia	1	7	1	7	119
Florida	2	290	2	290	830
Georgia	1	159	1	159	318
Illinois	8	2,130	11	2,493	34,935
Indiana	1	410	5	1,030	10,466
Iowa			3	156	3,537
Kentucky	2	205	2	205	590
Louisiana			1	240	480
Massachusetts	6	2,768	9	3,097	16,565
Michigan	8	270	8	270	2,624
Minnesota	1	80	3	258	3,420
Mississippi			2	34	336
Missouri	3	150	5	667	6,773
New Hampshire	1	6	1	6	12
New Jersey	2	135	8	547	7,881
New York	40	2,776	70	4,330	36,440
North Carolina	1	26	1	26	78
Ohio	6	446	8	612	5,035
Oklahoma	1	15	1	15	30
Oregon	2	126	2	126	805
Pennsylvania	16	5,851	26	7,010	37,859
Rhode Island			1	21	336
South Carolina	2	278	2	278	1,058
South Dakota	2	33	2	33	151
Tennessee	1	445	2	457	2,020
Texas	5	602	7	976	14,713
Virginia	1	33	2	1,033	20,231
Washington	4	658	5	668	5,339
West Virginia	1	229	1	229	916
Wisconsin			1	25	500
Interstate	7	8,802	7	8,802	53,802

There were no strikes beginning in February which involved as many as 5,000 workers. About 60 percent of the 132 strikes involved fewer than 100 workers each, 35 percent involved from 100 to 1,000 workers each, and 5 percent involved 1,000 or more workers each. The average number of workers involved in the 132 strikes beginning in February was 210. (See table 3.)

In more than half (about 54 percent) of the strikes beginning in February, the major issues were union-organization matters, that is, recognition, closed shop, discrimination, etc. Wages and hours were the major issues in about 29 percent of the strikes. About 17 percent of the strikes were due to rival-union and jurisdictional disputes, and various grievances over such questions as seniority, delayed pay, and increased work load.

About 43 percent of the workers were involved in the union-organization strikes, 42 percent in the wage-and-hour strikes, and approximately 15 percent in the disputes over other matters. (See table 4.)

TABLE 3.—*Strikes Beginning in February 1940, Classified by Number of Workers Involved*

Industry group	Total	Number of strikes in which the number of workers involved was—				
		6 and under 20	20 and under 100	100 and under 500	500 and under 1,000	1,000 and under 5,000
All industries	132	27	53	42	4	6
Manufacturing						
Iron and steel and their products, not including machinery	7	-------	2	4	-------	1
Machinery, not including transportation equipment	7	-------	4	3	-------	-------
Transportation equipment	5	-------	2	2	-------	1
Lumber and allied products	14	-------	4	10	-------	-------
Stone, clay, and glass products	2	-------	-------	1	-------	1
Textiles and their products	12	1	3	6	1	1
Leather and its manufactures	2	-------	-------	1	1	-------
Food and kindred products	8	1	5	2	-------	-------
Paper and printing	8	3	4	1	-------	-------
Chemicals and allied products	2	-------	-------	2	-------	-------
Miscellaneous manufacturing	2	-------	1	1	-------	-------
Nonmanufacturing						
Extraction of minerals	4	-------	1	2	-------	1
Transportation and communication	10	2	6	1	-------	1
Trade	19	8	8	2	1	-------
Domestic and personal service	13	7	5	1	-------	-------
Professional service	3	1	2	-------	-------	-------
Building and construction	11	4	5	2	-------	-------
Agriculture and fishing	2	-------	-------	1	1	-------
Other nonmanufacturing industries	1	-------	1	-------	-------	-------

TABLE 4.—*Major Issues Involved in Strikes Beginning in February 1940*

Major issue	Strikes		Workers involved	
	Number	Percent of total	Number	Percent of total
All issues	132	100.0	27,756	100.0
Wages and hours	39	29.5	11,727	42.3
Wage increase	25	18.9	9,966	36.0
Wage decrease	7	5.3	707	2.5
Wage increase, hour decrease	5	3.8	976	3.5
Hour decrease	2	1.5	78	.3
Union organization	71	53.8	11,974	43.1
Recognition	16	12.1	1,815	6.5
Recognition and wages	11	8.3	2,876	10.3
Recognition, wages, and hours	10	7.6	1,099	4.0
Closed or union shop	22	16.6	1,403	5.1
Discrimination	10	7.6	2,030	7.3
Strengthening bargaining position	1	.8	2,714	9.8
Other	1	.8	37	.1
Miscellaneous	22	16.7	4,055	14.6
Rival unions or factions	4	3.0	525	1.9
Jurisdiction [1]	4	3.0	238	.9
Other	14	10.7	3,292	11.8

[1] It is probable that the figures here given do not include all jurisdictional strikes. Due to the local nature of these disputes, it is difficult for the Bureau to find out about all of them.

Of the 218 strikes in progress during February, 119 were terminated during the month. The average duration of these strikes was about 22 calendar days. About 41 percent lasted less than a week, 39 percent had been in progress from a week up to a month, 16 percent

lasted from 1 up to 3 months, and 4 percent had been in progress 3 months or more. The largest of these was a strike at the Harbison-Walker Refractories Co., in East Chicago, Ind., which had been in progress since November.

TABLE 5.—*Duration of Strikes Ending in February 1940*

Industry group	Total	Number of strikes with duration of—					
		Less than 1 week	1 week and less than ½ month	½ and less than 1 month	1 and less than 2 months	2 and less than 3 months	3 months or more
All industries	119	49	24	22	9	10	5
Manufacturing							
Iron and steel and their products, not including machinery	5	2		1	1		1
Machinery, not including transportation equipment	4	1		1	2		
Transportation equipment	4	1				2	1
Nonferrous metals and their products	1			1			
Lumber and allied products	11	4	6	1			
Stone, clay, and glass products	4		2				2
Textiles and their products	9	3	1	1	1	2	1
Leather and its manufactures	2		1	1			
Food and kindred products	4	3	1				
Paper and printing	7	4	1	1	1		
Chemicals and allied products	2			1	1		
Miscellaneous manufacturing	4		2	1		1	
Nonmanufacturing							
Extraction of minerals	4	3	1				
Transportation and communication	12	5	3	3		1	
Trade	16	6	3	5		2	
Domestic and personal service	11	7		1	2	1	
Professional service	2	2					
Building and construction	15	7	3	3	1	1	
Other nonmanufacturing industries	2	1		1			

Government officials or boards assisted in the settlement of about 56 percent of the strikes ending in February, which included 50 percent of the total workers involved. About 29 percent of the strikes, including 43 percent of the workers involved, were settled through negotiations directly between the employers and representatives of organized workers. There were no formal settlements in 14 percent of the strikes which were terminated in February. In most of these cases the strikers returned to work without settlement of the disputed issues, or they lost their jobs when the employers replaced them with new workers, moved to another locality, or went out of business.

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TABLE 6.—*Methods of Negotiating Settlements of Strikes Ending in February 1940*

Negotiations toward settlements carried on by—	Strikes		Workers involved	
	Number	Percent of total	Number	Percent of total
Total	119	100.0	15,757	100.0
Employers and representatives of organized workers directly	34	28.6	6,754	42.9
Government officials or boards	67	56.3	7,981	50.6
Private conciliators or arbitrators	1	.8	568	3.6
Terminated without formal settlement	17	14.3	454	2.9

Of the 119 strikes ending in February, 40 percent resulted in substantial gains to the workers, 34 percent were compromised, and 17 percent brought little or no gains to the workers. Of the 15,757 workers involved 44 percent obtained compromise settlements, 41 percent won most of their demands, and 7 percent gained little or nothing.

TABLE 7.—*Results of Strikes Ending in February 1940*

Result	Strikes		Workers involved	
	Number	Percent of total	Number	Percent of total
Total	119	100.0	15,757	100.0
Substantial gains to workers	48	40.3	6,420	40.7
Partial gains or compromises	41	34.5	7,006	44.5
Little or no gains to workers	20	16.8	1,121	7.1
Jurisdiction, rival-union, or faction settlements	9	7.6	1,186	7.5
Indeterminate	1	.8	24	.2

The strikes over wages and hours were a little more successful from the workers' viewpoint than the union-organization disputes. Fifty percent of the wage-and-hour strikes were substantially won as compared with 45 percent of the union-organization strikes. Approximately the same proportion (34 percent) in each group were compromised. About 15 percent of the wage-and-hour strikes were lost as compared with 19 percent of those in the union-organization group.

Seventy percent of the workers in the wage-and-hour strikes won their demands, about 29 percent obtained compromise settlements, and 1 percent gained little or nothing. In the strikes over union-organization matters, about 36 percent of the workers substantially won their demands, 50 percent obtained compromise settlements, and 13 percent gained little or nothing.

TABLE 8.—*Results of Strikes Ending in February 1940, in Relation to Major Issues Involved*

Major issue	Total	Strikes resulting in— Substantial gains to workers	Partial gains or compromises	Little or no gains to workers	Jurisdiction, rival-union, or faction settlements	Indeterminate
	Number of strikes					
All issues	119	48	41	20	9	1
Wages and hours	32	16	11	5		
Wage increase	21	8	9	4		
Wage decrease	2	1	1			
Wage increase, hour decrease	7	5	1	1		
Hour decrease	2	2				
Union organization	62	28	21	12		1
Recognition	13	5	4	4		
Recognition and wages	13	6	7			
Recognition, wages, and hours	7	3	1	3		
Closed or union shop	18	10	6	2		
Discrimination	9	4	2	3		
Other	2		1			1
Miscellaneous	25	4	9	3	9	
Rival unions or factions	3				3	
Jurisdiction	6				6	
Other	16	4	9	3		
	Number of workers involved					
All issues	15,757	6,420	7,006	1,121	1,186	24
Wages and hours	5,949	4,165	1,714	70		
Wage increase	4,720	3,218	1,438	64		
Wage decrease	253	35	218			
Wage increase, hour decrease	898	834	58	6		
Hour decrease	78	78				
Union organization	5,049	1,796	2,552	677		24
Recognition	740	166	61	513		
Recognition and wages	1,692	179	1,513			
Recognition, wages, and hours	509	439	21	49		
Closed or union shop	1,017	581	390	46		
Discrimination	1,030	431	530	69		
Other	61		37			24
Miscellaneous	4,759	459	2,740	374	1,186	
Rival unions or factions	112				112	
Jurisdiction	1,074				1,074	
Other	3,573	459	2,740	374		

ACTIVITIES OF THE UNITED STATES CONCILIATION SERVICE, APRIL 1940

THE United States Conciliation Service, in April, disposed of 377 situations involving 76,372 workers. The services of this agency were requested by the employees, employers, and other interested parties.

Of these situations, 188 were strikes, threatened strikes, lock-outs, and controversies, involving 53,599 workers. The remaining situations, involving 22,773 workers, were services rendered, such as filling requests for information, adjusting complaints, consulting with labor and management, etc.

The facilities of the Service were used in 27 major industrial fields, such as building trades and the manufacture of foods, iron and steel, textiles, etc. (table 1), and were utilized by employees and employers in 37 States, Alaska, and the District of Columbia (table 2).

TABLE 1.—*Situations Disposed of by U. S. Conciliation Service, April 1940, by Industries*

Industry	Disputes		Other situations		Total	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
All industries	188	53,599	189	22,773	377	76,372
Agriculture	1	27			1	27
Automobile	13	2,571	3	3,560	16	6,131
Building trades	17	1,214	15	345	32	1,559
Chemicals	7	991	5	12	12	1,003
Communications			1	1,100	1	1,100
Domestic and personal	8	390	12	365	20	755
Food	18	4,121	15	258	33	4,379
Iron and steel	17	4,591	6	7	23	4,598
Leather	3	1,635	2	3	5	1,638
Lumber	13	2,168	4	47	17	2,215
Machinery	16	9,263	8	43	24	9,306
Maritime			2	2	2	2
Mining	3	11,800	2	2	5	11,802
Motion picture	1	1	1	1	2	2
Nonferrous metal	5	920	1	1	6	921
Paper	3	708	1	7	4	715
Petroleum	3	104	8	79	11	183
Printing	2	343	2	2	4	345
Professional			1	2	1	2
Rubber	3	126	4	113	7	239
Stone, clay, and glass	4	777	5	8	9	785
Textile	14	3,218	17	718	31	3,936
Tobacco	2	126	3	6,502	5	6,628
Trade	10	1,684	8	20	18	1,704
Transportation	13	911	13	1,428	26	2,339
Transportation equipment	2	5,015	1	1	3	5,016
Utilities	3	366	5	3,342	8	3,708
Unclassified	7	529	44	4,805	51	5,334

TABLE 2.—*Situations Disposed of by U. S. Conciliation Service, April 1940, by States*

States	Disputes		Other situations		Total	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
All States	188	53,599	189	22,773	377	76,372
Alabama	4	357	8	787	12	1,144
Alaska	1	25			1	25
Arkansas	4	277			4	277
California	9	6,906	13	191	22	7,097
Colorado	1	320			1	320
Connecticut	1	100	1	15	2	115
District of Columbia	2	3	18	523	20	526
Florida	7	391	14	7,270	21	7,661
Georgia	1	23	5	5	6	28
Illinois	9	579	9	1,186	18	1,765
Indiana	13	1,948	3	67	16	2,015
Iowa	7	3,199	2	37	9	3,236
Kansas			2	3	2	3
Kentucky	4	7,484	2	35	6	7,519
Louisiana	6	258	8	1,429	14	1,687
Maryland	3	542	2	9	5	551
Massachusetts	3	166	1	50	4	216
Michigan			4	3,512	4	3,512
Minnesota	9	1,686	1	1	10	1,687
Mississippi	2	245			2	245
Missouri	15	1,444	9	209	24	1,653
Montana	5	130			5	130
New Jersey	7	1,171			7	1,171
New Mexico	1	475			1	475
New York	11	3,169	21	5,980	32	9,149
North Carolina	2	401	6	529	8	930
Ohio	20	2,627	22	216	42	2,843
Oklahoma	2	760			2	760
Oregon	1	197			1	197
Pennsylvania	15	5,539	8	169	23	5,708
Rhode Island	2	300	2	101	4	401
South Carolina	1	1,200	2	2	3	1,202
Tennessee	6	493	11	329	17	822
Texas			2	20	2	20
Utah	1	20			1	20
Virginia	3	1,875			3	1,875
Washington	2	325	3	56	5	381
West Virginia	1	400	7	18	8	418
Wisconsin	7	8,564	3	24	10	8,588

STRIKES IN BELGIUM DURING 1939 [1]

DURING 1939, 68 strikes affecting 78 industrial enterprises and involving 42,598 workers occurred in Belgium. No lock-outs took place during the year.

The number of strikes decreased appreciably from those of the preceding year—from 126 in 1938 to 68 in 1939. In all, 78 enterprises were affected in 1939 as against 163 in 1938. The number of workers involved in 1939 was 42,598—somewhat higher than in 1938 when the total was 32,338.

The most important conflicts which took place during 1939 were those of April 3 and 9 and December 15 and 27 in the coal industry and of October 16 to November 16 in the textile industry.

[1] Data are from report by William H. Beach, American consul at Antwerp, Belgium.

The total number of man-days idle during 1939 was 157,242 as compared with 240,937 in 1938 and 647,647 in 1937.

Of the 68 strikes which occurred during the year, 72 percent affected the mining industry and accounted for 96 percent of the strikers.

Strike statistics are shown by industry in the following table:

Strike Activity, by Industry Groups, 1939

Industry groups	Number of strikes	Number of enterprises	Workers involved
All industries	68	78	42,598
Mining	49	56	40,783
Quarries	4	4	645
Metallurgical	1	1	140
Chemicals	1	1	6
Textiles	6	9	863
Wood and furniture	4	4	79
Paper	1	1	45
Transportation	2	2	37

Working hours and wages were the major issues in 66 percent of the strikes, affecting 84 percent of the workers involved in all strikes. About 48 percent of the strikes, involving 37 percent of the workers, were caused by wage issues, while 18 percent of the strikes, involving 47 percent of the workers, were caused by working-hour issues.

About 80 percent of the strikes, involving 93 percent of the workers, lasted less than a week; 15 percent, involving 6 percent of the workers, lasted from a week to a month, while 2 strikes lasted from 30 to 40 days and 1 lasted for 8 months.

Of the 68 strikes, 10 percent were settled in favor of the workers, the outcome of 59 percent was favorable to employers, and 31 percent were terminated by compromises.

INDUSTRIAL DISPUTES IN IRELAND, 1939 [1]

THERE was less strike activity in Ireland during 1939 than in the preceding year. The number of strikes begun in 1939 was 99, as compared with 137 in 1938, the number of workers involved, 6,667 as compared with 13,736, and the total number of man-days of idleness, 106,476 as compared with 208,784. Statistics of strikes are shown in the following table, by years, for the period 1936–39.

Of the 99 disputes in 1939, 42 were caused by wage questions and 40 related to the engagement or dismissal of workers. Stoppages owing to trade-union questions or refusal to conclude collective agreements, and to hours of labor, were fewer in number during 1939 than in 1938. Forty-four percent of all the disputes from 1936 to 1939

[1] Ireland. Irish Trade Journal and Statistical Bulletin [Dublin], March 1940.

were concerned with wages, and these accounted for 63 percent of the number of workers involved and 90 percent of the man-days of idleness.

Industrial Disputes in Ireland, 1936-39

Year	Number of—			
	Disputes	Establishments affected	Workers involved	Man-days idle
1936	107	192	9,443	185,623
1937	145	333	26,734	1,754,949
1938	137	305	13,736	208,784
1939	99	129	6,667	106,476

Man-days idle in 1939 owing to labor disputes aggregated 20,675 in the metal and engineering industries; followed by the distributive trades with 15,868; construction and maintenance of roads, bridges, etc., with 13,747; textiles, 12,959; and transport and communications with 10,835.

Only 20 of the 99 disputes which began in 1939 lasted more than 1 month, but these accounted for over 37 percent of the total number of man-days of idleness. The 9 disputes of from 21 to 30 days' duration involved the largest number of workers and one-third of the man-days of idleness.

Of the 98 disputes terminated in 1939, the outcome was entirely favorable to workers in 31, partially favorable in 28, and the workers' claims were rejected in 19. For 20 stoppages the result was indeterminate. Settlements were reached by direct negotiation in 62 disputes, by voluntary conciliation in 11, and by arbitration in 1, and disputes were ended without successful negotiation in the remaining 24.

INDUSTRIAL DISPUTES IN THE NETHERLANDS, 1926–39

OWING to the well-developed workers' unions and employers' associations and their long experience in dealing with each other, there have been recently relatively few industrial disputes resulting in strikes or lock-outs. This is indicated by the fact that there were fewer industrial disputes in 1939 than in such favorable years as 1936 and 1937. The following table shows the number of disputes, from 1926 to 1939, as well as the time lost and the results of the strikes.[1]

[1] Maandschrift, State Central Statistical Bureau, January 1940.

Number of Industrial Disputes in the Netherlands, Workers Involved, Time Lost, and Results of Disputes, 1926 to 1939

Year	Number of—			Percent of disputes—			Percent of workers involved in disputes—		
	Disputes	Workers involved	Workdays lost by workers	Won by workers	Lost by workers	Compromised	Won by workers	Lost by workers	Compromised
Average per year:									
1926–1930	220	13,600	487,900	29	24	42	11	20	67
1931–1935	184	18,010	707,800	38	24	34	12	24	62
1936	96	9,120	94,800	39	29	27	59	11	29
1937	95	4,925	38,800	41	25	34	16	16	68
1938	141	8,490	136,200	38	16	45	23	20	57
1939	88	6,050	81,700	45	27	23	17	59	24

Minimum Wages and Maximum Hours

COVERAGE OF WHOLESALE AND RETAIL TRADE UNDER WAGE AND HOUR LAW

A STATEMENT dealing with the coverage of the Fair Labor Standards Act with respect to employees engaged in wholesale and retail establishments has recently been issued by the office of the general counsel of the Wage and Hour Division of the United States Department of Labor.[1] Although conditions differ in various companies engaged in the distribution of merchandise, certain factors are enumerated as a guide to employers.

Section 13 (a) (2) of the wage and hour law provides for the removal from coverage by its wage and hour provisions of "any employee engaged in any retail or service establishment the greater part of whose selling or servicing is in intrastate commerce." A retail sale is a sale to the ultimate consumer for direct consumption and not for resale in any form. The merchandise is sold in smaller quantities and at higher prices than are paid by jobbers or wholesalers. A sale of goods to be used for industrial or business purposes, as distinguished from private or family use, is not a retail sale.

It is the opinion of the counsel that any establishment engaged exclusively in the distribution of merchandise may be considered a retail establishment, if more than 50 percent of the dollar value of its total sales are retail sales. An establishment doing wholesale and retail business may not be treated as a retail establishment, if more than 50 percent of the dollar value of sales is at wholesale.

Although exemption from the wage and hour provisions applies to employees of retail establishments, the facts in a particular case determine whether or not the exemption applies. For example, if a firm operates two separate establishments, the sales of each must be considered separately in determining coverage or exemption. It is not sufficient that both stores together sell 50 percent of their dollar value at retail. Each store must meet this condition, if the exemption is to apply. However, failure of one store to qualify does not affect the other.

It may be difficult to determine whether wholesale or retail selling predominates in some cases. Where all transactions take place under

[1] U. S. Department of Labor. Wage and Hour Division. Press releases Nos. G27 and R748, April 29, 1940.

one roof, the place of business is a single establishment. If the wholesale branch of the business is distinct and separate from the retail branch, the wholesale branch would ordinarily be treated as a wholesale establishment and therefore its employees would be subject to the wage and hour provisions.

An employee performing exempt and nonexempt work is entitled to the benefits of the law during any workweek in which he performs any nonexempt work.

GARMENT WORKERS' WAGES FIXED UNDER WAGE AND HOUR LAW

MINIMUM wages of 32½ to 40 cents an hour, according to the division of the garment industry, have been established under the terms of the Fair Labor Standards Act of 1938.[1] The rates, affecting employees in the industry engaged in interstate commerce and the production of goods for interstate commerce, become effective July 15, 1940. It is estimated that about 200,000 garment workers located in practically every State will have their hourly wage rates increased.

This is the largest number of workers to be granted a wage increase by an industrial order of the Administrator of the wage and hour law, under the provision that a universal minimum wage of 40 cents an hour shall be reached as rapidly as possible, without substantially curtailing employment or earning power, in the industries subject to the terms of the legislation. This brings the number of wage orders up to seven.[2]

For the purposes of the order the apparel industry includes all apparel, apparel furnishings and accessories made by cutting and sewing or embroidery processes, except: Knitted outerwear, knitted underwear, hosiery, men's fur felt, wool felt, straw and silk hats and bodies, ladies' and children's millinery, furs, and boots and shoes.

The divisions of the industry and the minimum wages follow. Wages of garment workers in Puerto Rico remain at the statutory minimum of 30 cents an hour.

Men's Wear

Men's and boys' clothing (40 cents).

The manufacture of men's and boys' suits, overcoats, topcoats, tailored uniforms, and men's summer wash suits, not elsewhere specified, from any woven materials or from purchased knitted materials.

Sportswear and other odd outerwear (40 cents).

The manufacture of men's, women's, and children's sportswear and other odd outerwear, including windbreakers, lumber jackets, mackinaws and mackinaw

[1] U. S. Department of Labor. Wage and Hour Division. Press release No. 771.

[2] See Monthly Labor Review, issues of October and December 1939 and February and May 1940 for previous orders.

coats, melton jackets, blanket-lined and similar coats, leatherette coats and jackets, hunting coats and vests, riding clothing, ski suits and snow suits (except children's ski suits and snow suits), and similar garments not elsewhere specified, from any woven materials or from purchased knitted materials.

Leather and sheep-lined garments (40 cents).

The manufacture of leather, leather trimmed, and sheep-lined garments for men, women, or children.

Rainwear (40 cents).

The manufacture of waterproofed garments and raincoats from oiled cloth or other materials, whether vulcanized, rubberized, cravenetted, or otherwise processed.

Single pants and breeches other than those of 100 percent cotton fabric (37½ cents).

The manufacture of men's and boys' separate trousers or pants, breeches and knickers from any fabric except that consisting of 100 percent cotton.

Single pants of 100 percent cotton fabric, overalls, coveralls and work shirts (32½ cents).

The manufacture of single pants made of 100 percent cotton fabric; overalls; overall jackets (regardless of type of fabric used in lining); men's, boys' and children's overalls; and work shirts.

Dress shirts, collars and sleeping wear (32½ cents).

The manufacture of men's and boys' dress shirts, sport shirts, flannel shirts, blouses, collars and sleeping wear from any woven fabric or from any purchased knit fabric.

Men's and boys' underwear of woven fabric (32½ cents).

The manufacture of men's and boys' underwear from any woven fabric.

Women's Wear

Cloaks, suits and separate skirts (40 cents).

The manufacture of women's, misses', juniors' and children's coats, reefers, jackets, capes, wraps, riding habits, knickers, suits, tailored ensembles, skirts and jumper skirts, from any woven materials or from purchased knitted materials.

Dresses (35 cents).

The manufacture of women's, misses' and juniors' dresses, frocks, gowns and dressmaker ensembles, for whatever use, from any woven materials or from purchased knitted materials.

Blouses, shirtwaists, neckwear and scarfs (35 cents).

The manufacture of women's, misses' and juniors' blouses, blousettes, waists, shirtwaists, tunic blouses, vestees, guimpes, gilets; women's, misses', juniors' and children's neckwear, toppers, scarfs, rufflings and ruchings, and similar garments from any woven material or from purchased knitted materials.

Corsets and allied garments (35 cents).

The manufacture of corsets, step-in corsets, brassieres, bandeau-brassieres, garter belts, girdle corsets or step-in corsets attached to brassieres or bandeau-brassieres, corselets, foundation garments, all similar body-supporting garments and corset accessories from whatever material.

Underwear, nightwear and negligees made of woven fabric (35 cents).

The manufacture of women's, misses', and children's undershirts, panties, bloomers, step-ins, athletic underwear, slips, petticoats, chemises, nightgowns,

pajamas, negligees, housecoats, bedjackets, waist suits, and infants' underwear, from any woven materials.

Infants' and children's outerwear (35 cents).

The manufacture of infants' and children's dresses, skirt and blouse suits, rompers, creepers, sportswear and play apparel, including sun suits, gym suits, snow suits, ski suits, slacks and beachwear, infants' outerwear, brother and sister suits, baby boys' and boys' wash suits and similar infants' and children's garments not elsewhere specified, from any woven materials or from purchased materials.

Robes (35 cents).

The manufacture of men's, women's and children's bath, lounging and beach robes and dressing gowns, from any woven materials or purchased knitted materials.

Washable service apparel (35 cents).

The manufacture of women's washable service uniforms, including waitresses', nurses', and maids' uniforms, aprons, jackets, and smocks, and similar washable service garments not elsewhere specified; and the manufacture of men's washable service uniforms (except tailored uniforms) whether as separate coats or trousers, or as combinations thereof, and similar washable service garments not elsewhere specified.

Accessories and Special Products

Caps and cloth hats (40 cents).

The manufacture of men's and boys' hats or caps (except men's and boys' fur-felt, wool-felt, straw, and silk and opera hats and bodies) from any woven material, any purchased knitted material, leather, leatherette, or any combination of such materials, including, but without limitation, uniform caps, aviation caps, and shop and railroad caps; and including the manufacture of cap visors, bands and brims, and the manufacture of sweat bands from any material other than leather.

Belts (40 cents).

The manufacture of men's, boys', women's, misses', and children's separate belts from leather, imitation leather, or other material or fabric.

Covered buttons and buckles (35 cents).

The manufacturing process of covering buttons and buckles with cloth, leather, or similar materials.

Garters, suspenders and arm bands (35 cents).

The manufacture of garters, suspenders, arm bands, and other elastic woven products (except orthopedic and athletic) from webbing, leather, or other material.

Ladies' handbags (35 cents).

The manufacture of ladies', misses', and children's handbags, pocketbooks, and purses from any material of any kind or nature; except metal handbags, pocketbooks, purses, and mesh bags.

Artificial flowers and feathers (35 cents).

The manufacture, processing, and fabrication of artificial flowers, buds, foliage, fruits, plants, and feathers, or parts thereof from any material; and the preservation and processing of natural flowers and feathers.

Men's neckwear and scarfs (35 cents).

The manufacture of men's and boys' neckties, scarfs, and mufflers from any woven materials or from purchased knitted materials.

Gloves and mittens other than work gloves and mittens (35 cents).

The manufacture of all gloves and mittens (except athletic) other than work gloves and mittens, from leather, woven or knitted fabrics, or from any combination of these materials.

Work gloves and mittens (32½ cents).

The manufacture of work gloves and mittens from fabric, leather, or fabric and leather combined, or knitted materials.

Handkerchiefs (32½ cents).

The manufacture of men's, women's, and children's handkerchiefs, plain or ornamented, from any materials.

WOOL-INDUSTRY WAGE UNDER WAGE AND HOUR LAW [1]

APPROVAL of a minimum wage of 36 cents an hour for the wool industry brings the total number of industries for which the Administrator of the wage and hour law has established wages to a total of eight. The wage order became effective June 17, 1940.

A study of the wage structure in the wool industry made in 1938 indicated that some 11,000 workers in the industry, which employs about 140,000 persons altogether, were making less than 36 cents an hour. In the fall of 1939 many woolen mills gave their workers general increases of 7 percent. This increase reduces the number affected by the recommended minimum, economists of the Wage and Hour Division stated, but probably not as much as would be expected. The 7-percent increase occurred in the larger mills of the industry. Most of the workers getting less than 36 cents an hour were employed in small mills.

While the woolen industry is carried on in some 750 establishments located in 31 States, 80 to 90 percent of the production is in the New England States, New York, New Jersey, and Pennsylvania.

TWENTY INDUSTRIAL OPERATIONS SEASONAL UNDER WAGE AND HOUR LAW

RELAXATIONS of hour limitations have been granted in 20 industrial operations under the Fair Labor Standards Act of 1938 because of the effect of climatic conditions on availability of raw materials.[2] Seasonal industries may continue to work their employees 12 hours a day or 56 hours in any one workweek for 14 weeks in a calendar year before payment of at least time and one-half the regular rate of wages is required to be paid to employees.

[1] U. S. Department of Labor. Wage and Hour Division. Press release No. 776.

[2] Idem. Press release No. 768.

Formal applications for seasonal exemptions have been made by employer groups of 24 industries. Four of these applications were denied by the Administrator after hearings. A great number of informal applications, most of them from individual employers, have been handled by informal notification of the inapplicability of the seasonal finding to the industry in question, in addition to the formal procedures for applications as set forth by the regulations. This procedure has the advantage of saving time and affords an opportunity to inform interested parties concerning the significance of the seasonal provision in the act more promptly and in a more adequate manner than would be practical under a system of formal denials.

Regulations laid down by the Administrator as a guide in finding which industries are seasonal, provide that "the exemption for an industry of a seasonal nature is applicable to an industry which both engages in handling, extracting, or processing of materials during a season or seasons occurring in a regularly, annually recurring part or parts of the year; and ceases production, apart from such work as maintenance, repair, clerical and sales work in the remainder of the year because of the fact that owing to climate or other natural conditions, the materials handled, extracted, or processed, in the form in which such materials are handled, extracted, or processed are not available in the remainder of the year."

Of the 20 industrial operations which have been found to be seasonal, final determinations as to seasonality have been made in 18 cases, and these industries are now operating under the hours exemption provided for such operations. The industries are buying, handling, stemming and redrying of green leaf tobacco; tobacco warehousing; natural ice harvesting and packing; the pulpwood sap peeling branch of the lumber industry; the ice and snow road hauling of lumber in Northeastern and Lake States; raw fur receiving; buying, stripping, sizing, and packing of cigar leaf tobacco; open-cut mining of placer gold in Alaska and certain western States; open-cut mining of sand and gravel in northern States; spring freshet driving of lumber in the Northeastern and Lake States (later extended to other sections on another application); manufacture of brick in Maine, New Hampshire, and Vermont; processing of hybrid seed corn; cane-sugar processing and milling in Louisiana; harvesting, preparing, and processing of undried evergreens, and the processing of evergreen trees into Christmas trees; curing and packing of Virginia-Smithfield cured meats; cleaning and processing of redtop seed; cleaning, bagging, and handling in cleaning plants of sugar-beet seed; cleaning and preparing of garden seed and seed corn.

Objection was received to the prima facie finding by the Administrator that placer tin operations in Alaska are seasonal, and further investigation is being made. Seasonal exemption for cold storage of

apples in the "Appalachian area" has been proposed following a hearing on application for such exemption, and objection has been received to the granting of such exemption. Further investigation is being made with respect to granting that exemption also.

The four industries in which applications for seasonal exemptions have been denied are open-cut mining of bentonite, open-cut mining of dimension stone, western pine lumber and English walnut and filbert packing.

The decision of the Administrator in three of these industries became final when no petitions for review were received within 15 days of publication in the Federal Register. These industries were open-cut mining of bentonite, the packing of English walnuts and filberts, and western pine lumber.

The Administrator is reviewing objections to the finding after hearing, in which seasonal exemption was denied to open-cut mining of dimension stone.

After application for seasonal exemption by any employer or employer groups, and upon consideration of the facts and reasons stated in the application, the Administrator may, without further proceedings, deny the application on the ground that it fails to allege facts entitling the industry to an exemption as a seasonal industry; or, upon consideration of the facts and reasons stated in the application and upon such further investigation as may appear appropriate, the Administrator may set the application for hearing before the Administrator or his authorized representative; or may notify the applicant of, and publish in the Federal Register and by general press release, a preliminary determination that a prima facie case for the granting of an exemption has been shown.

In the event that the Administrator determines that a prima facie case for the granting of an exemption has been shown, the Administrator for 15 days following the publication of his preliminary determination will receive objection to the granting of the exemption and request for hearing from any person interested, including, but not limited to, employees, employee groups, and employee labor organizations within the industry claimed to be exempt.

If no objection and request for hearing is received within 15 days, the Administrator will make a finding upon the prima facie case. The exemption shall become effective upon publication of the finding in the Federal Register.

Upon receipt of objection and request for hearing, the Administrator will set the application for hearing before the Administrator or an authorized representative.

Where hearing is had before an authorized representative of the Administrator, any person aggrieved by the finding of such representa-

tive may within 15 days after the action of such representative file a petition with the Administrator requesting a review by the Administrator of the action of the representative upon the record of hearing before the representative. If the request for review is granted, all interested parties will be afforded an opportunity to be heard either in support of, or in opposition to, the matters prayed for in the petition.

If no such petition for review is filed within 15 days, or if such petition is denied by the Administrator, the finding of the authorized representative shall become final.

If a petition for review is granted, and upon hearing the Administrator confirms a finding by the representative that the industry is of a seasonal nature, the exemption shall become effective upon publication of the finding in the Federal Register.

If the Administrator, rejecting a finding by the representative to the contrary, finds on the record that the industry is of a seasonal nature, the exemption shall become effective upon publication of the Administrator's finding in the Federal Register.

LABOR IN THE BRITISH ROAD-TRANSPORT INDUSTRY

OWING to the increasing importance of road transport, special legislation was adopted, prior to the present war, to safeguard the conditions of employment of the workers engaged in the industry. Since the beginning of the war in Europe, additional measures have been taken to protect the position of road-transport labor and still maintain flexibility in operations.

Regulation of Employment Conditions

Under the terms of the Road Haulage Wages Act [1] of 1938, provision was made for setting up the Road Haulage Central Wages Board to make proposals for regulating working conditions of road-transport workers, including their wages and hours. The Minister of Labor and National Service gave effect to certain of the proposals submitted by the Board early in 1940.[2] Wage schedules were adopted for certain classes of workers with headquarters in the London area and with headquarters outside that region.

The weekly rates of pay for drivers of vehicles other than steam wagons and all types of tractors and whose home depot is in London are shown below:

[1] See Monthly Labor Review, issue of September 1938, for a summary of its terms.
[2] Great Britain. Ministry of Labor Gazette (London), January and February 1940.

	Shillings [1]
Under 21 years of age: Driving vehicles with carrying capacity of—	
10 cwt. or less:	
First year	37
Second and subsequent years	42
Over 10 cwt. to 20 cwt.:	
First year	42
Second and subsequent years	47
21 years and over: Driving vehicles with carrying capacity of—	
Under 1 ton	59
1 ton	[2] 63
	[3] 68
All ages: Driving vehicles with carrying capacity of—	
Over 1 ton to 2 tons	[2] 67
	[3] 68
Over 2 tons to 5 tons	[2] 73
	[3] 74
Over 5 tons	[2] 77
	[3] 78

[1] Average exchange rate of shilling approximately 24 cents.
[2] For drivers whose employment commenced after June 8, 1932.
[3] For drivers in employment on June 8, 1932, who have remained in the service of the same employer.

Rates were also established for certain other classes of workers with headquarters in London, as follows: Drivers of steam wagons and all types of tractors are entitled to 77s. a week. If a trailer is attached to the vehicle being driven, the driver receives 6d. per day above the specified pay. If the driver's ordinary hours commence on one day and end on the next, a 6d. per day supplement is also required. Mates on steam wagons are entitled to 64s. a week, and statutory attendants and mates (18 years old or over), other than workers under 21 years old employed as vanguards, and other than mates on steam wagons, receive 62s. a week.

The wage rates for employees in the industry whose home depot is outside the London area, other than those to whom long-distance rates apply, are somewhat lower. However, if a load is picked up or set down in a locality where the scale of wages is higher than that where the worker's home depot is located, the worker is paid for the whole journey at the highest rate of wages applicable to that class of vehicle, or if employed on long-distance services, at the rate applicable thereto.

Under the terms of the order the wages established were made applicable to England and Wales from January 29, 1940, and to all of Great Britain as of May 6, 1940.

It was also provided that a worker employed by the week or for a longer period should receive a full week's pay in respect of any week in which he works for the employer and has engaged in road haulage. Remuneration is to be paid for a full 48 hours, even though the actual working time is less. The rate of remuneration payable is that appropriate for the hours worked and the normal rate applicable to him for the remaining hours. The guarantee of a week's pay does not

apply if a substantial part of the worker's employment is devoted to pursuits other than road haulage. Effective May 6, 1940, a regular employee working less than 4 hours on any day is to be treated as having worked 5½ hours. A daily worker is entitled to wages for 8½ hours on any day from Monday to Friday, and for 5½ hours on Saturday.

Hourly wages of regular workers are calculated by dividing the weekly pay by 48. For daily workers, beginning May 6, 1940, 6s. must be added to the weekly rate for regular workers before dividing by 48 to obtain the hourly rate.

Effective May 6, 1940, overtime rates are payable to regular workers for hours worked in excess of 10, on any day other than Sunday, and for hours worked in excess of 48 in any week. Double pay is required for Sunday work. Overtime rates are modified for milk workers. Workers employed between 10 p. m. and 4 a. m. are paid 2d. per hour above the appropriate rate for the time worked in that interval.

Employees are entitled to 5s. for each rest period away from home which does not exceed 14 hours. After 14 hours the worker is deemed to be on duty for a minimum period of 5½ hours at his normal rate of pay; and for the remainder of the 24 hours from the beginning of the rest period he is to be paid 2s. 6d.

For public holidays employers must pay their regular road-haulage workers the wages due for 8½ hours' work. If the worker is required to work on such holidays, his remuneration must be double the rate otherwise appropriate. Every regular employee is entitled to 1 week's holiday with pay, provided he has been in continuous employment for not less than 1 year immediately preceding the date of such vacation, and has not been absent for more than 7 days without reasonable cause. A break in employment amounting to not more than 4 weeks, owing to work shortage or other cause outside the worker's control, is not regarded as affecting continuity of employment. Beginning in 1941, a worker who has been allowed a week's holiday in any year, and whose employment terminates before another holiday is granted, is entitled to the holiday pay due for the additional service. For 6 months but less than 12 months of service he must be paid at the rate of one-half his weekly wage, and for 12 months or more, the weekly wage.

Suspension of Regulations

Under the Emergency Powers (Defense) Act of 1939, special orders were issued permitting the Minister of Transport to impose such restrictions as he deemed proper in regard to hours of work and hours of rest of transport workers. The initial action of the Minister was to order the suspension of certain provisions of the Road Traffic Act,

1930, insofar as they limited the hours of work of drivers engaged in hauling materials or supplies for Government purposes in the defense services.[3]

Broad powers were granted the Minister of Labor and National Service under the terms of the Trade Boards and Road Haulage Wages (Emergency Provisions) Act of 1940, which received royal assent on February 20, 1940.[4] During the war emergency, the Minister may modify or suspend by regulations the operation of any of the provisions of the Trade Boards Acts of 1909 and 1918 and the Road Haulage Wages Act of 1938, in order to adapt the existing statutory systems of trade boards and road haulage wages boards to wartime conditions. This does not apply to the penal clauses of the original statutes or to the rate-fixing powers of the various boards.

Regulations have now been issued under the emergency legislation of 1940. Trade boards are permitted to reduce the period of notice required for variations of minimum rates of pay. Notice must now be given not less than 14 days in advance of the change, in place of 2 months in advance as formerly provided. Procedure is simplified by relaxing the requirements regarding the quorum of a trade board, and as to the obligation to consult district trade committees.

The chief effect of the legislation on the Road Haulage Central Wages Board has been to reduce the period of notice required for altering the statutory remuneration fixed by this body. Notice 21 days in advance of any change is now required. Each area board must have an opportunity of considering and reporting on the proposals during the period of notice. The regulations also provide relaxation of the rules governing the numbers forming a quorum.

NOTE.—After this summary was written the Minister of Labor issued an order (1) increasing the weekly pay of workers 5s. per week in the London and Grade 1 areas and 3 to 4s. elsewhere; (2) bringing additional road-haulage workers within the scope of the law; and (3) making appropriate increases in hourly rates, overtime, subsistence, and vacation pay.[5]

[3] See Monthly Labor Review, issue of January 1940.
[4] Great Britain. Ministry of Labor Gazette (London), March 1940.
[5] Great Britain. Ministry of Labor Gazette (London), May 1940.

HOURLY EARNINGS IN 105 SELECTED INDUSTRIES, BY STATES, 1937

By A. F. Hinrichs and Arthur F. Beal, *Bureau of Labor Statistics*

AVERAGE wage earnings of a sample of 4,161,934 wage earners in 105 industries in 1937 were 64.8 cents per hour,[1] in contrast to 56.7 cents per hour found for 2,717,977 wage earners in 59 industries during 1935, and 43.2 cents per hour for 1,638,306 wage earners in 35 industries during 1933.

The rubber-tire industry averaged more than any other surveyed, 94.5 cents per hour. Plants making men's underwear from purchased cloth had the lowest average, about 28 cents.

Average wage earnings varied widely among the several States. Michigan had the highest average, 84.9 cents, and Mississippi the lowest, 28.7 cents. The differences reflect not only differences in wage rates but also differences in the types of industry found in these States.

Summaries of the three man-hour tabulations as originally obtained for 1933 to 1937 are given in the first three lines of table 1. These data relate to all reports to the Census of Manufactures of man-hours worked in the three years 1937, 1935, and 1933. Items covered in the table other than wages per hour are number of establishments covered, number of hours worked per wage earner per month, value of products produced per man-hour, value added per man-hour, and for 1937 the number of kilowatt-hours of electric energy [2] used per man-hour.

[1] Bureau of Census and Bureau of Labor Statistics: "Man-Hour Statistics for 105 Selected Industries" for 1937, prepared under the supervision of Arthur F. Beal. In each industry, only establishments which reported usable or satisfactory figures on the number of man-hours worked were included in the man-hour tabulation. Data were similarly compiled covering 59 industries in 1935, and 35 industries in 1933. In each census, the total number of wage earners covered by the man-hour sample relative to the total number employed in the list of covered industries was as follows: 1937, 91.6 percent; 1935, 91.3 percent; and 1933 83.2 percent.

[2] Both the quantity purchased and that generated in the reporting establishments.

The scope of the man-hour sample, i. e., the number of industries covered, has been considerably broadened [3] in each census since 1933. The 1937 sample, with a total of 105 industries, covered 46 industries in new fields not included in the 1935 man-hour sample. In fact, the sample has now been increased to the point that it equals 48.5 percent of the wage earners in all manufacturing industries (i. e., of the entire census of manufactures) and, for that reason, should be expected to be at least fairly representative of all manufacturing.

To correct the results from the consequences of including new portions of the census in the later years, comparative results are also given in table 1 which cover as nearly as possible identical fields. For example, 1937 and 1935 results are given for the field or scope represented in 1935 by the 55 industries repeated in the 1937 man-hour tabulation; and results for all three censuses are given for the field covered by the 1933 tabulation.

The comparative results, on the basis of the 1933 list of industries, show that hourly wages, value of products per hour, and value added per hour increased markedly between 1933 and 1937. Wages, for example, increased from 43.2 cents in 1933 to 55.5 cents in 1935, or 28.5 percent; and to 65.3 cents for 1937, this being 17.7 percent above the 1935 figure and 51.2 percent above 1933.

On the basis of the 1935 list (after excluding four industries not repeated in 1937), hourly wages increased from 56.2 cents in 1935 to 65.6 cents in 1937, or 16.7 percent; this is a trifle less than the 17.7 percent shown for the same period by the 1933 list of industries.

[3] The increase in number of man-hour industries in one census relative to a previous census was due largely to the covering of new fields but in part also to reassignment by the Census Bureau of the establishments into new industry designations. A summary of the changes in the number of man-hour industries is as follows:

Comparison	Loss (dropped)	Increases	
		Regroupings	New fields
1937 relative to 1935	4	4	46
1935 relative to 1933	2	13	13
1937 relative to 1933	2	17	55

Of the four which were dropped between 1935 and 1937, electric-railroad repair shops and steam-railroad repair shops were discontinued by the Census Bureau as manufacturing industries; the diminutive sand-lime brick industry was reported in 1937 on a questionnaire which did not carry the man-hour inquiry; and the manufactured-ice industry was dropped from the man-hour list by the Bureau of Labor Statistics because of the belief that results of more value would be obtained from the effort spent by tabulating the same number of accepted establishments (nearly 2,000) in other industries. The four new industries in 1937 obtained by regrouping of establishments in the field covered in 1935 were knitted gloves and mittens, knitted outerwear contractors, leather-tanning contract factories, and nonclay refractories.

TABLE 1.—*Comparative Man-Hour Averages as Shown by the Census of Manufactures for 1937, 1935, and 1933*

Field of industries covered, and census year	Establishments (1)	Wage earners [1] (2)	Hours per wage-earner per month (3)	Average per wage-earner man-hour			
				Wage earnings (4)	Value of products (5)	Value added (6)	Electric energy used (7)
Each field as originally tabulated:				*Cents*			*Kwh.*
1937—105 industries	24,411	4,161,934	161.1	64.8	$4.17	$1.53	5.44
1935—59 industries	15,510	2,717,977	157.8	56.7	3.76	1.24	[2]
1933—35 industries [3]	7,365	1,638,306	165.1	43.2	3.32	1.10	[4]
Field covered in 1935 tabulation: [5]							
1937—61 industries [6]	15,271	3,060,959	161.1	65.6	4.35	1.48	6.36
1935—55 industries	12,903	2,550,463	157.0	56.2	3.92	1.27	[2]
Field covered in 1933 tabulation:							
1937—50 industries [7]	10,252	2,536,139	160.0	65.3	4.66	1.45	6.53
1935—46 industries	10,643	2,168,069	157.4	55.5	4.15	1.24	[2]
1933—35 industries [3] [8]	7,365	1,638,306	165.1	43.2	3.32	1.10	[4]

[1] Average for the year.
[2] Not tabulated for all man-hour industries.
[3] Considering the four branches of the knit-goods industry as separate industries, in the manner it was actually classified for 1935.
[4] Not tabulated.
[5] After eliminating from the 1935 results the data for four industries—manufactured ice, sand-lime brick, electric-railroad repair shops, and steam-railroad repair shops—not covered by man-hours in 1937. (The last two industries were discontinued by the Census Bureau as manufacturing industries.)
[6] Still includes data for two small textile industries—processed cotton waste and recovered wool fiber—covered in 1937 (and 1933) but possibly omitted for 1935 as a result of classification changes.
[7] Does not include the manufactured-ice industry, covered in the comparative data given for 1935 and 1933.
[8] Still includes data for the malt industry, not tabulated by man-hours in the censuses for 1935 and 1937.

The enlargement of the sample between 1933 and 1937 resulted in including reports for about 4,162,000 workers in 1937 as against 2,536,000 employed in 1937 in the industries covered in 1933. The expansion of the sample was sufficiently well-balanced by the inclusion of industries with wages both above and below the average so that average earnings were little affected. In 1935 the full list covered averaged 56.2 cents, as against 55.5 cents for those industries covered also in 1933. In 1937 the industries added tended to restore the balance of the sample. Thus the average hourly earnings for 105 industries were 64.8 cents, as against 65.3 cents in 1937 for the 50 industry groups also covered in 1933.

Detailed figures for each of the 105 industries covered in 1937 are given in table 2, together with group averages for about 17 series of similar industries.[4] Average hourly wage earnings ranged from a low of 27.3 cents in the contract men's-underwear industry to 94.5 cents in the rubber-tire industry. The latter industry was also the highest in the list in 1935, the rate that year being 84.1 cents. The increase in average wages in this industry between 1935 and 1937 was, therefore, 10.4 cents an hour. The largest wage increase in the 1935 list during

[4] The 1935 data for each of the 59 industries covered that year were published in the Monthly Labor Review under the title "Geographical Variation in Hours and Wages during 1933 and 1935" in the July 1938 issue, table 2, pp. 124–5; and the 1933 data in "Man-Hours of Employment in 35 Manufacturing Industries in 1933" in the October 1935 issue, table 1, pp. 907–8.

the interval—1935 to 1937—was in the steel industry, from 65.0 to 81.7 cents, or 16.7 cents an hour. Wages in the petroleum-refining industry increased from 77.1 to 90.4 cents, or 13.3 cents an hour; motor vehicles (exclusive of bodies and parts) increased from 75.3 to 90.9 cents, or 15.6 cents an hour; meat packing from 55.7 to 63.0 cents, or 7.3 cents an hour; and cotton broad-woven goods from 37.0 to 41.1 cents, or 4.1 cents an hour. The increase in the average of the list of 55 industries was, as shown by table 1, 9.4 cents an hour.

Aside from the textile group, none of the industries covered showed a decrease in average wages between 1935 and 1937. Among the chemical industries, the smallest increase was 6.2 cents an hour in leather tanning; among the stone-clay-glass industries, it also was 6.2 cents an hour in clay products; and among the metal industries, the smallest was 5.1 cents an hour in the diminutive machine-repair-shop industry. In other words, none of the industries in these three major groups showed an average increase of less than 5 cents an hour.

In the food-tobacco and the textile groups, however, the results are quite different. The chewing-tobacco and snuff industry showed an increase of 3.8 cents an hour; cigars, 2.3 cents; prepared feeds, 1.6 cents; and flour milling, 0.9 cents an hour. In the textile group covering 26 industries or branches of industries for which wage increases are obtainable (2 of the 24 regular industries of the group were tabulated in 2 branches each), 7 industries showed increases in average wages in excess of 5 cents an hour and 8 showed actual decreases. The latter included all 4 of the silk and rayon industries or branches which operated on a commission basis,[5] together with silk narrow fabrics, hosiery (in large measure another aspect of silk manufacture), "regular" rayon throwing, and woolen yarn. The largest decrease was 4.8 cents an hour, in the "commission" rayon broad-woven-goods industry. In other words, as far as the 1935 list of industries is concerned, reductions in average wages between 1935 and 1937 occurred almost exclusively in the rayon and silk manufactures, the only exception being a reduction of 1.1 cents an hour for about 2,400 wage earners in the woolen-yarn industry.

[5] Commission silk throwing, silk broad goods, rayon throwing, and rayon broad goods.

TABLE 2.—*Averages per Man-Hour, by Industries, for Selected Establishments in 105 Industries for 1937*

Industry	Establishments	Wage earners [1]	Hours per wage earner per month	Averages per wage-earner man-hour			
				Wage earnings	Value of products	Value added	Electric energy used
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
				Cents			*Kwh.*
105 selected industries [2]	**24,411**	**4,161,934**	**161.1**	**64.8**	**$4.17**	**$1.53**	**5.44**
Food and tobacco industries (11)	**3,445**	**314,301**	**170.6**	**58.8**	**9.67**	**2.12**	**3.50**
Food industries (8)	2,938	227,964	177.4	64.1	10.23	2.15	4.55
Flour milling	847	20,660	191.9	52.7	15.44	2.37	11.83
Feeds, prepared	603	11,759	189.0	49.5	13.74	2.45	5.24
Cereal preparations	76	7,887	170.3	65.6	9.72	4.13	8.14
Meat packing, wholesale	723	119,283	177.9	63.0	10.23	1.46	2.78
Sugar, beet	83	9,024	195.0	53.3	4.86	1.72	5.49
Sugar refining, cane	23	14,024	164.3	57.8	15.36	2.24	7.16
Liquors, distilled	104	5,471	172.2	58.9	9.02	3.14	6.04
Liquors, malt	479	39,856	168.0	84.7	5.86	3.65	3.54
Tobacco industries (3)	507	86,337	152.6	42.5	7.97	2.02	.65
Cigars	392	50,442	153.1	37.4	1.70	.82	.30
Cigarettes	34	26,149	152.7	50.5	20.23	4.12	1.28
Tobacco (chewing, smoking) and snuff	81	9,746	150.0	47.9	7.60	2.58	.75
Textile mill products and apparel (45)	**6,046**	**1,195,004**	**149.9**	**46.8**	**1.92**	**.84**	**2.71**
Textile mill products (34)	4,161	972,841	152.3	46.4	1.92	.83	3.22
Cotton manufactures (7)	1,401	464,475	154.5	41.9	1.68	.76	4.91
Cotton yarn and thread	316	76,706	148.1	37.9	1.72	.70	5.53
Cotton woven goods	586	318,283	154.5	41.1	1.56	.72	5.31
Cotton narrow fabrics	118	11,002	161.0	45.8	1.80	.89	1.19
Dyeing and finishing of cotton yarn	61	5,358	156.2	49.6	1.53	1.05	2.46
Dyeing and finishing of cotton fabrics	195	46,904	162.2	50.8	2.12	1.00	2.91
Batting, padding, etc	80	4,168	161.4	49.5	4.04	1.44	2.74
Processed cotton waste	45	2,054	173.0	35.7	2.48	.93	2.30
Wool manufactures (11)	730	189,212	148.8	56.7	2.96	1.10	2.13
Wool combing—commission	11	3,252	157.5	57.9	1.68	.93	2.41
Woolen yarn	35	2,397	155.2	55.1	2.85	1.02	2.02
Worsted yarn	64	15,478	142.1	50.9	3.09	.83	2.72
Woolen woven goods	284	58,109	152.8	55.5	2.59	1.04	2.02
Worsted woven goods	147	68,443	145.9	57.7	3.24	1.04	2.36
Woolen and worsted dyeing and finishing	34	1,743	154.8	56.9	2.50	1.31	1.33
Recovered wool fiber	52	2,772	168.4	49.9	3.50	1.00	2.20
Felt goods	35	3,349	176.6	56.1	3.62	1.35	2.91
Woolen and worsted carpet yarn	12	2,385	150.1	61.8	3.68	1.13	2.03
Wool carpets and rugs	47	30,496	143.8	60.6	3.07	1.49	1.50
Paper-fiber and grass carpets and rugs	9	788	173.5	46.8	1.92	1.18	1.21
Rayon manufactures (6)	488	81,494	151.0	48.5	2.02	.83	2.33
Rayon throwing—commission	22	1,770	154.6	33.7	.68	.54	3.54
Rayon yarn and thread (regular throwing)	38	4,847	149.9	37.0	2.15	.71	3.21
Rayon broad-woven goods—commission [3]	50	2,610	153.7	38.9	.65	.55	1.21
Rayon broad-woven goods—regular [3]	144	50,497	150.8	47.0	2.24	.78	2.55
Rayon narrow fabrics	93	5,001	162.8	43.5	1.69	.93	.69
Dyeing, finishing of rayon (and silk) yarn	31	1,100	146.8	56.5	1.64	1.20	1.64
Dyeing, finishing of rayon and silk fabric	110	15,669	147.7	61.4	1.78	1.07	2.01
Silk manufactures (4)	319	40,714	151.2	41.2	1.51	.67	2.33
Silk throwing—commission	75	12,072	142.1	35.1	.68	.53	3.51
Silk yarn and thread (regular throwing)	41	9,452	154.6	41.0	2.07	.67	2.73
Silk broad-woven goods—commission [3]	43	2,179	153.5	38.5	.60	.51	1.55
Silk broad-woven goods—regular [3]	97	12,752	157.0	43.7	1.90	.70	1.67
Silk narrow fabrics	63	4,259	150.7	51.5	1.67	1.00	.73
Knit goods (6)	1,223	196,946	151.3	47.8	1.55	.78	.74
Hosiery	507	125,958	150.4	50.8	1.34	.74	.67
Knitted cloth	135	9,907	159.0	48.0	3.01	1.06	1.96
Knitted gloves and mittens	15	3,182	139.3	39.9	1.09	.65	.31
Knitted outerwear—contract factories	108	2,241	146.9	43.2	.91	.77	.38
Knitted outerwear—regular factories	316	19,630	154.4	45.0	2.14	.93	.41
Knitted underwear	142	36,028	151.8	39.5	1.62	.77	.84

See footnotes at end of table.

TABLE 2.—*Averages per Man-Hour, by Industries, for Selected Establishments in 105 Industries for 1937*—Continued

Industry	Establishments (1)	Wage earners (2)	Hours per wage earner per month (3)	Averages per wage-earner man-hour: Wage earnings (4)	Value of products (5)	Value added (6)	Electric energy used (7)
				Cents			*Kwh.*
Apparel (men's clothing) (11)	1,885	222,163	139.2	48.8	$1.90	$0.86	0.23
Work clothing, including work shirts	376	47,325	142.5	35.7	1.80	.63	.26
Trousers (semidress) and washable service apparel	119	9,712	147.7	33.9	1.61	.62	.21
Leather and sheep-lined clothing	45	2,948	138.1	56.5	3.11	.99	.30
Shirts (except work shirts), collars, nightwear:							
Contract factories	65	6,391	131.4	33.1	.49	.44	.16
Regular factories	200	40,905	146.0	36.5	1.61	.73	.23
Men's underwear—contract factories	9	1,424	133.7	27.3	.40	.33	.13
Men's underwear—regular factories	36	6,410	149.8	28.7	1.34	.45	.19
Men's furnishing goods—contract factories	17	456	132.2	48.2	.76	.69	.17
Men's furnishing goods—regular factories	147	7,031	150.3	45.9	2.63	1.06	.22
Men's and boys' clothing not elsewhere classified:							
Contract sponging, examining, etc., of material [4]	35	725	168.6	85.6	1.90	1.82	.62
Contract factories	401	22,145	123.3	60.8	.84	.78	.18
Regular factories	435	76,691	135.5	66.3	2.53	1.19	.24
Chemical industries (15)	**3,246**	**489,439**	**162.1**	**68.2**	**6.19**	**2.14**	**14.15**
Chemical industries other than rubber (12)	2,883	363,656	167.1	66.1	6.89	2.30	16.36
Paper	573	104,112	177.8	60.2	4.06	1.65	24.75
Pulp	173	25,680	175.9	58.4	4.31	1.65	45.68
Rayon and allied products	33	55,098	160.7	61.4	2.40	1.64	11.22
Drugs and medicines	548	21,336	168.6	54.1	7.22	5.25	.95
Insecticides and fungicides	265	2,821	171.1	52.7	8.01	4.05	1.47
Perfumes, cosmetics, and other toilet preparations	266	9,242	167.5	46.5	6.75	4.00	.48
Soap	165	13,764	166.4	68.6	10.84	4.17	3.78
Cleaning and polishing preparation	165	2,852	175.7	56.1	8.62	5.09	1.52
Blackings, stains, and dressings	75	1,336	162.3	49.5	6.47	3.81	.51
Petroleum refining	292	79,622	155.9	90.4	16.19	3.10	16.15
Leather tanning—contract factories	51	2,190	156.5	62.1	1.51	1.02	1.28
Leather tanning—regular factories	277	45,603	164.4	61.6	4.10	1.15	2.06
Rubber industries (3)	363	125,783	147.6	75.1	3.88	1.61	6.90
Rubber boots and shoes	12	18,356	153.0	60.6	1.91	1.10	2.07
Rubber tires and inner tubes	46	63,290	134.8	94.5	5.63	2.04	10.73
Other rubber goods	305	44,137	163.8	57.9	2.58	1.31	4.26
Stone, clay, glass (6)	**1,523**	**187,865**	**164.2**	**59.9**	**2.17**	**1.41**	**9.66**
Cement	148	24,808	165.8	64.0	3.47	2.16	48.85
Lime	158	8,797	179.9	45.7	1.66	1.03	4.75
Clay products, other than pottery	803	46,769	170.1	49.3	1.38	.96	2.05
Pottery and porcelain	189	28,264	169.7	57.3	1.46	1.06	1.26
Nonclay refractories	36	5,230	150.8	62.9	2.58	1.47	3.77
Glass	189	73,997	156.8	68.4	2.60	1.64	5.53
Nonferrous metal industries (7)	**1,742**	**153,236**	**172.8**	**66.7**	**6.60**	**1.68**	**7.51**
Aluminum products	115	23,337	165.9	67.6	3.51	1.46	4.29
Copper smelting and refining	23	14,514	194.6	61.8	21.11	2.07	19.84
Lead smelting and refining	14	4,036	183.1	62.6	28.60	2.20	13.05
Zinc smelting and refining	25	11,265	170.5	72.8	5.02	1.74	27.51
Scrap smelting and refining	78	4,526	175.6	56.9	10.77	1.65	3.26
Nonferrous-metal alloys and products, except aluminum	680	77,694	170.8	68.5	3.88	1.64	4.46
Sheet-metal work, not specifically classified	807	17,864	171.5	61.9	3.49	1.57	.67
Iron and steel and their products, including machinery (21)	**8,409**	**1,822,089**	**165.2**	**75.9**	**3.98**	**1.68**	**4.48**
Iron and steel (2)	463	495,795	166.8	81.4	4.00	1.62	10.53
Blast-furnace products	83	22,580	183.4	75.3	13.44	2.55	14.15
Steel-works and rolling-mill products	380	473,215	166.0	81.7	3.50	1.57	10.34

See footnotes at end of table.

TABLE 2.—*Averages per Man-Hour, by Industries, for Selected Establishments in 105 Industries for 1937*—Continued

Industry	Establishments (1)	Wage earners (2)	Hours per wage earner per month (3)	Averages per wage-earner man-hour: Wage earnings (4)	Value of products (5)	Value added (6)	Electric energy used (7)
				Cents			*Kwh.*
Iron-steel products except machinery (8)	1,498	196,087	164.4	61.3	$3.22	$1.41	2.31
Cast-iron pipe and fittings	61	15,909	158.9	54.2	1.86	1.08	1.88
Wrought pipe	47	13,635	149.3	76.6	4.49	1.78	4.28
Plumbers' supplies, other than pipe, etc	171	23,417	165.3	61.5	2.26	1.29	2.26
Steel barrels, kegs, and drums	49	6,140	165.6	59.4	3.88	1.45	1.73
Tin cans	192	32,248	168.3	56.1	5.42	1.72	1.57
Stamped metal products: enameling, etc	540	54,840	166.9	59.9	2.39	1.18	1.86
Wire drawn from purchased rods	84	24,052	160.9	71.7	3.85	1.73	4.92
Wirework not elsewhere classified	354	25,846	167.6	58.5	2.56	1.33	1.39
Electrical machinery (2)	1,212	289,850	165.5	68.1	3.14	1.84	2.61
Electrical machinery, apparatus, supplies	1,088	243,513	167.4	69.9	3.16	1.92	2.87
Radios, radio tubes, phonographs	124	46,337	155.4	58.2	3.02	1.36	1.16
Machinery other than electrical (7)	4,429	371,187	179.2	70.4	2.90	1.73	1.80
Machine tools	249	45,875	193.9	71.3	2.37	1.66	1.32
Machine-tool accessories	586	28,977	181.7	79.4	2.28	1.63	1.36
Machinery, not elsewhere classified	1,708	126,663	184.0	67.5	2.99	1.82	1.50
Machine-shop products	1,192	89,519	173.3	69.1	2.94	1.74	2.27
Machine-repair shops	391	3,787	181.1	66.5	1.97	1.31	.92
Engines, turbines, and water wheels	107	28,723	174.8	74.5	2.77	1.54	1.95
Refrigerators and ice-making apparatus	196	47,643	164.7	72.6	3.68	1.71	2.58
Motor-vehicle industries (2)	807	469,170	152.7	86.6	5.89	1.73	2.22
Motor-vehicle bodies and motor vehicle parts	689	278,847	154.7	83.7	3.96	1.53	2.22
Bodies	336	84,597	152.4	88.4	4.87	1.54	1.81
Parts and accessories	255	189,071	155.2	82.3	3.59	1.53	2.43
Trailers	98	5,179	170.5	61.0	2.88	1.22	1.11
Motor vehicles	118	190,323	149.9	90.9	8.81	2.05	2.21

[1] Average for the year.
[2] Biennial-census totals for the 105 industries: Establishments, 37,827; wage earners, 4,541,503; wages, $5,585,523,597.
[3] The broad-woven goods industry, as classified, has been tabulated in two branches, "commission" and "regular."
[4] A branch of the contract-factory industry.

When data for all the selected establishments in each State are brought together, without reference to the portion of any industry covered in any one State or to the number of industries covered in the States, the results obtained are those given in table 3. Fundamental data from the man-hour sample are given in the table for four items in each State, viz., number of establishments, number of wage earners, aggregate number of man-hours reported by the selected establishments in each State, and aggregate wages paid in those establishments. Average hourly wages in each State can be computed from these data; and, as the man-hour sample covers 48.5 percent of the wage earners in the entire census of manufactures, averages for all or most of the States should be at least moderately representative of all manufacturing in those States. The extent to which this is true should be ascertained.

By dividing the wage total for each State in table 3 by the given number of wage earners, average annual earnings per wage earner in

the State are obtained, as supplied by the selected man-hour establishments in the State. Column 5 gives the result for each State. In like manner, column 6 gives the corresponding annual average obtained from the census totals covering all wage earners and all industries in each State. Comparing columns 5 and 6, the average from the man-hour sample is larger than that from the entire census in every State but two, Mississippi and the District of Columbia. The excess for each State is shown as a percentage of the entire census in the last column. Figures are also given at the beginning of table 3 for geographic districts and the three major areas, North, South, and West.

TABLE 3.—*Comparisons of Annual Wage Earnings, by States, as Shown by Selected Establishments in 105 Industries and by Entire Census of Manufactures, 1937*

Geographic district and State	Man-hour sample				Average annual earnings		
	Establishments	Wage earners [1]	Man-hours	Wages	Man-hour sample	Entire census	Difference (percent)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
United States (105 selected industries) [2]	24,411	4,161,934	8,045,560,689	$5,211,281,291	$1,252	$1,180	6
The North (first 4 districts)	17,899	3,147,826	6,102,677,747	4,215,484,044	1,339	1,258	6
The South (next 3 districts)	4,013	860,698	1,635,870,358	781,841,045	908	848	7
The West (last 2 districts)	2,499	153,410	307,012,584	213,956,202	1,395	1,266	10
Geographic districts							
New England	2,830	503,010	970,065,134	570,385,391	1,134	1,109	2
Middle Atlantic	7,225	1,082,481	2,093,949,123	1,388,175,454	1,282	1,230	4
East North Central	6,278	1,411,036	2,736,565,880	2,070,091,453	1,467	1,364	8
West North Central	1,566	151,299	302,097,610	186,831,746	1,235	1,126	10
Upper South	2,289	486,305	915,436,180	456,293,355	938	904	4
Lower South	1,092	308,840	587,095,248	242,852,562	786	719	9
Southwest	632	65,553	133,338,930	82,695,128	1,262	1,049	20
Mountain	452	32,724	70,941,487	44,782,325	1,368	1,227	11
Pacific	2,047	120,686	236,071,097	169,173,877	1,402	1,272	10
New England:							
Maine	160	37,404	73,331,031	39,394,702	1,053	958	10
New Hampshire	149	22,601	44,455,624	22,615,437	1,001	977	2
Vermont	80	9,371	18,819,889	10,243,803	1,093	1,039	5
Massachusetts	1,530	243,987	462,292,823	276,611,886	1,134	1,121	1
Rhode Island	335	72,400	136,533,538	76,265,951	1,053	1,045	1
Connecticut	576	117,247	234,632,229	145,253,612	1,239	1,189	4
Middle Atlantic:							
New York	3,027	303,829	596,233,776	384,948,891	1,267	1,241	2
New Jersey	1,385	208,358	401,427,843	258,599,318	1,241	1,199	4
Pennsylvania	2,813	570,294	1,096,287,504	744,627,245	1,306	1,233	6
East North Central:							
Michigan	1,148	451,241	840,041,996	713,125,639	1,580	1,494	6
Ohio	1,979	419,994	809,482,638	612,984,940	1,460	1,379	6
Indiana	659	182,236	363,987,386	258,888,516	1,421	1,283	11
Illinois	1,753	250,992	504,235,534	341,244,904	1,360	1,290	5
Wisconsin	739	106,573	218,818,326	143,847,454	1,350	1,266	7
West North Central:							
Minnesota	403	33,751	67,369,813	43,160,398	1,279	1,194	7
Iowa	210	21,145	43,051,380	25,276,127	1,195	1,123	6
Missouri	600	68,015	132,368,011	82,117,300	1,207	1,084	11
North Dakota	17	610	1,474,927	800,166	1,312	1,119	17
South Dakota	21	2,050	4,326,544	2,576,592	1,257	1,104	14
Nebraska	115	8,143	17,143,963	10,237,742	1,257	1,129	11
Kansas	200	17,585	36,362,972	22,663,421	1,289	1,187	9

[1] Average for the year.
[2] Biennial census totals for the 105 industries: Establishments, 37,827; Wage earners, 4,541,503; wages, $5,585,523,597.

TABLE 3.—*Comparison of Annual Wage Earnings, by States, as Shown by Selected Establishments in 105 Industries and by Entire Census of Manufactures, 1937*—Cont.

Geographic district and State	Man-hour sample				Average annual earnings		
	Establishments (1)	Wage earners (2)	Man-hours (3)	Wages (4)	Man-hour sample (5)	Entire census (6)	Difference (percent) (7)
Upper South:							
Delaware	67	9,192	18,740,907	$11,329,171	$1,233	$1,092	13
Maryland	482	78,898	155,978,292	94,501,248	1,198	1,076	11
District of Columbia	17	515	1,117,602	618,725	1,201	1,474	−19
West Virginia	186	53,202	101,223,671	68,771,520	1,293	1,228	5
Virginia	308	61,824	116,830,795	54,371,913	879	850	3
North Carolina	626	181,839	329,738,805	137,216,208	755	731	3
Kentucky	254	34,685	63,539,405	34,942,758	1,007	960	5
Tennessee	349	66,150	128,266,703	54,541,812	825	809	2
Lower South:							
South Carolina	222	97,678	182,336,540	72,558,964	743	707	5
Georgia	297	92,267	170,657,498	67,652,575	733	693	6
Florida	99	11,736	23,965,390	9,116,183	777	702	11
Alabama	220	72,564	140,548,137	62,849,329	866	798	9
Mississippi	45	9,915	19,146,612	5,485,788	553	573	−3
Louisiana	149	20,221	41,545,426	21,083,527	1,043	792	32
Arkansas	60	4,459	8,895,585	4,106,196	921	663	39
Southwest:							
Oklahoma	143	13,520	27,174,737	17,706,539	1,310	1,164	13
Texas	489	52,033	106,164,193	64,988,589	1,249	1,023	22
Mountain:							
Montana	71	5,577	12,268,150	8,413,856	1,509	1,398	8
Idaho	44	1,686	4,093,161	2,349,887	1,394	1,270	10
Wyoming	27	1,986	3,984,320	3,163,762	1,593	1,375	16
Colorado	170	13,525	27,868,085	17,908,651	1,324	1,224	8
Utah	83	6,237	13,652,842	7,638,355	1,225	1,106	11
Nevada	13	506	1,303,332	905,157	1,789	1,606	11
New Mexico	13	197	421,903	184,754	938	812	16
Arizona	31	3,010	7,349,694	4,217,903	1,401	1,196	17
Pacific:							
Washington	328	18,866	37,139,523	26,460,111	1,403	1,269	11
Oregon	205	10,215	19,627,637	12,655,529	1,239	1,205	3
California	1,514	91,605	179,303,937	130,058,237	1,420	1,288	10

TABLE 4.—*Averages per Man-Hour, by States, Based Upon Selected Establishments in 105 Industries, 1937*

Geographic district and State	Establishments	Wage earners [1]	Hours per wage earner per month	Averages per wage-earner man-hour			
				Wage earnings	Value of products	Value added	Electric energy used
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
				Cents			*Kwh.*
United States (105 selected industries) [2]	24,411	4,161,934	161.1	64.8	$4.17	$1.53	5.44
The North (First 4 districts below)	17,899	3,147,826	161.6	69.1	4.10	1.59	4.87
The South (Next 3 districts)	4,013	860,698	158.4	47.8	3.73	1.20	6.30
The West (Last 2 districts)	2,499	153,410	166.8	69.7	7.86	2.19	12.17
Geographic districts							
New England	2,830	503,010	160.7	58.8	2.71	1.24	4.28
Middle Atlantic	7,225	1,082,481	161.2	66.3	3.81	1.55	4.97
East North Central	6,278	1,411,036	161.6	75.6	4.45	1.72	4.93
West North Central	1,566	151,299	166.4	61.8	7.38	1.81	5.47
Upper South	2,289	486,305	156.9	49.8	3.68	1.27	5.42
Lower South	1,092	308,840	158.4	41.4	2.45	.91	6.66
Southwest	632	65,553	169.5	62.0	9.74	2.03	10.77
Mountain	452	32,724	180.7	63.1	8.76	2.10	16.50
Pacific	2,047	120,686	163.0	71.7	7.59	2.22	10.87
New England:							
Maine	160	37,404	163.4	53.7	2.75	1.13	14.05
New Hampshire	149	22,601	163.9	50.9	2.43	.99	9.61
Vermont	80	9,371	167.4	54.4	2.89	1.22	4.24
Massachusetts	1,530	243,987	157.9	59.8	2.81	1.26	3.34
Rhode Island	335	72,400	157.2	55.9	2.51	1.11	2.85
Connecticut	576	117,247	166.8	61.9	2.67	1.37	2.92
Middle Atlantic:							
New York	3,027	303,829	163.5	64.6	4.21	1.68	5.09
New Jersey	1,385	208,358	160.6	64.4	4.42	1.66	3.76
Pennsylvania	2,813	570,294	160.2	67.9	3.36	1.43	5.35
East North Central:							
Michigan	1,148	451,241	155.1	84.9	4.86	1.73	3.69
Ohio	1,979	419,994	160.6	75.7	4.03	1.70	5.82
Indiana	659	182,236	166.4	71.1	4.37	1.79	6.46
Illinois	1,753	250,992	167.4	67.7	4.75	1.75	4.28
Wisconsin	739	106,573	171.1	65.7	3.88	1.57	5.37
West North Central:							
Minnesota	403	33,751	166.3	64.1	7.04	1.86	6.46
Iowa	210	21,145	169.7	58.7	7.35	1.64	5.34
Missouri	600	68,015	162.2	62.0	6.07	1.83	4.12
North Dakota	17	610	201.5	[3] 54.3	[3] 11.47	[3] 1.75	[3] 3.94
South Dakota	21	2,050	175.8	59.6	9.49	1.24	4.52
Nebraska	115	8,143	175.5	59.7	10.60	1.75	6.23
Kansas	200	17,585	172.3	62.3	10.85	1.88	8.47
Upper South:							
Delaware	67	9,192	169.9	60.5	3.06	1.27	4.38
Maryland	482	78,898	164.7	60.6	4.34	1.50	6.28
District of Columbia	17	515	180.7	(4)	(4)	(4)	(4)
West Virginia	186	53,202	158.6	67.9	3.00	1.35	7.01
Virginia	308	61,824	157.5	46.5	5.01	1.59	7.26
North Carolina	626	181,839	151.1	41.6	3.34	1.06	4.15
Kentucky	254	34,685	152.7	55.0	4.88	1.51	4.15
Tennessee	349	66,150	161.6	42.5	2.61	1.08	5.50
Lower South:							
South Carolina	222	97,678	155.6	39.8	1.67	.71	6.13
Georgia	297	92,267	154.1	39.6	2.26	.82	5.19
Florida	99	11,736	170.2	38.0	2.25	1.01	5.39
Alabama	220	72,564	161.4	44.7	2.47	1.04	7.37
Mississippi	45	9,915	160.9	28.7	1.64	.63	4.71
Louisiana	149	20,221	171.2	(4)	(4)	(4)	(4)
Arkansas	60	4,459	166.3	(4)	(4)	(4)	(4)
Southwest:							
Oklahoma	143	13,520	167.5	65.2	8.85	2.15	10.72
Texas	489	52,033	170.0	(4)	(4)	(4)	(4)

See footnotes at end of table.

TABLE 4.—*Averages per Man-Hour, by States, based Upon Selected Establishments in 105 Industries, 1937*—Continued

Geographic district and State	Establishments	Wage earners [1]	Hours per wage earner per month	Averages per wage-earner man-hour			
				Wage earnings	Value of products	Value added	Electric energy used
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Geographic districts—Continued							
Mountain:				*Cents*			*Kwh*
Montana	71	5,577	183.3	68.6	$10.68	$2.16	43.08
Idaho	44	1,686	202.3	57.4	9.70	1.94	28.69
Wyoming	27	1,986	167.2	[3] 79.4	[3] 9.86	[3] 2.90	[3] 14.64
Colorado	170	13,525	171.7	64.3	5.34	1.72	6.72
Utah	83	6,237	182.4	55.9	11.17	1.90	10.20
Nevada	13	506	214.9	69.4	12.65	7.01	3.99
New Mexico	13	197	178.7	[3] 43.8	[3] 7.38	[3] 1.61	[3] 4.52
Arizona	31	3,010	203.5	[3] 57.4	[3] 12.27	[3] 2.57	[3] 18.00
Pacific:							
Washington	328	18,866	164.0	71.2	7.16	2.32	26.57
Oregon	205	10,215	160.1	64.5	5.23	1.79	14.68
California	1,514	91,605	163.1	72.5	7.93	2.25	7.21

[1] Average for the year.

[2] Biennial-census totals for the 105 industries: Establishments, 37,827; wage earners, 4,541,503; wages, $5,585,523,597.

[3] The average annual wage provided by the man-hour sample in each of four States—North Dakota, Wyoming, New Mexico, and Arizona—exceeded somewhat that provided by all industries in those States, but the man-hour sample in each case is nevertheless judged to be fairly representative of the State. This excess in annual wage was traceable in each case to one or both of two specific situations explained in more detail in footnote 4 below; and detailed industry figures for these States are given in footnote 10, p. 1480.

[4] Man-hour averages for four States—Arkansas, Louisiana, Texas, and the District of Columbia—are omitted here as being not sufficiently representative in each case of manufacturing in all industries in the State. As shown in columns 5 and 6 of table 3, the average annual wage provided by the man-hour sample for the first three of these States exceeded that for all industries in the State, whereas for the District of Columbia the reverse was true, i. e., the average provided by the sample was much smaller than that provided by the entire census in the area. The results withheld above are given below, and, if used, should be used with caution. They are as follows: Wage earnings per man-hour—Ark., 46.2 cents; La., 50.7 cents; Tex., 61.2 cents; D. C., 55.4 cents. Value of products per man-hour—Ark., $4.24; La., $6.75; Tex., $9.97; D. C., $3.86. Value added per man-hour—Ark., $1.28; La., $1.71; Tex., $2.00; D. C., $1.70. Electric energy used per man-hour—Ark., 12.30 kwh.; La., 13.06 kwh; Tex., 10.78 kwh.; D. C.. 3.86 kwh.

For each of these four States, the difference between the average annual wage provided by the man-hour sample and that for all industries in the State was definitely traceable, at least in part, to one or both of two specific situations: (1) An important high-wage industry, such as petroleum refining or copper smelting, being included in the man-hour sample (the wage earners covered generally being, of course, a larger portion of the sample than the industry is of the entire census of the State); or (2) the omission from the man-hour sample of an important low-wage industry, such as lumber. For the District of Columbia, however, with the man-hour average less than the average for the entire census in the area, it was the omission of some high-wage industries of the area which caused the discrepancy. Details on some specific industries in these States, and the four other States mentioned in footnote 3 above, are given in footnote 10, p. 1480.

The average annual wage for the United States, as shown by the 24,411 establishments of the man-hour sample, was $1,252, or 6.1 percent larger than the $1,180 shown by the 166,794 establishments of the entire census. That the two figures do not agree is entirely due, of course, to the manner of selecting the man-hour sample. Chief reasons for this were the selection of high-wage industries and high-wage establishments in the chosen industries.[6] An unexplored possibility is that an excessive portion of the sample may have been

[6] The average for all biennial-census establishments in the man-hour industries (37,827 in number) was $1,230, i. e., $50, or 4.2 percent, above the average of $1,180 for all industries. Within the man-hour industries, the 24,411 selected establishments employing 4,161,934 wage earners averaged $1,252 ($22 above the average for all establishments in these industries), whereas the 379,569 wage earners in the 13,416 establishments omitted from the sample averaged only $986.

selected from large cities,[7] but it cannot be due to an excessive portion being selected from the North and a deficiency from the South,[8] because the sample for the North covered 49.3 per cent of all wage earners employed in manufacturing in the North, whereas the Southern sample covered 52.7 percent of all industrial wage earners in the South; the Western sample covered only 28.0 percent of all industrial wage earners in the West.

This difference in annual earnings between the industries and establishments covered by the man-hour sample and by the entire census is small enough to give assurance that the average hourly earnings in all manufacturing in the United States were in fact close to the figure of 64.8 cents. In individual States, however, the differences in annual earnings shown in the two columns are so large as to invalidate a comparison of hourly earnings between States.[9] In the case of 4 States—Arkansas, Louisiana, Texas, and the District of Columbia—the average hourly earnings for the establishments reporting man-hours are probably not representative of all manufacturing in these States. In four additional States—North Dakota, Wyoming, New Mexico, and Arizona—averages for the man-hour sample are shown, but they should be used with caution. In each of the latter group of States the total number of wage earners engaged in manufacturing is small.

The reason for the differences between the man-hour establishments and the grand total in each of these eight States lies in the fact that, in every case except the District of Columbia, the man-hour sample included an important high-wage industry of the State (frequently petroleum refining), or omitted an important low-wage industry of the State (generally lumber). In either event, therefore, the omitted industries would, in general, naturally have wages below the average for the entire census, thereby causing the average wage of the man-hour sample to be above the average for the entire census. For the District of Columbia, the reverse was the situation; the important industries omitted from the sample paid high wages, thereby causing

[7] Unpublished analyses of the man-hour samples for 1935 and 1933 show that, on the average, in the North, wages in cities over 500,000 inhabitants are about 14 percent higher than in the same industries in cities under 10,000 inhabitants.

[8] Hourly wages in the South in 1935 were found to be 15.3 percent less than in the same industries in the North. See "Geographical Variation in Hours and Wages during 1933 and 1935," in Monthly Labor Review, July 1938, table 7, p. 139.

[9] In this connection it should be recalled that the averages by States represent what the average wage earner can earn. This depends not only on the general level of wages but also upon the type of industry in the State. The averages for the several States therefore do not measure wage levels for identical types of work.

the average wage for the sample to be below the average for the entire census.[10]

In Arkansas the average annual wage for establishments covered in man-hour sample was $921, whereas the average for all establishments covered by the Census of Manufactures was $663. This is the largest discrepancy between the sample and all manufacturing establishments in any State. No industry in the man-hour sample covered a predominant portion of the 37,280 industrial wage earners of Arkansas, but for a number of the industries in the sample the average wage was above the State average of $663 for all industries. The petroleum-refining industry, for example, included in the sample, had only 539 wage earners in the State, but the average wage paid in the industry was nearly double the State average for all industries. On the other hand, the lumber industry, not in the man-hour list, is the most important in the State; it employed 17,322 wage earners, or nearly half of the total for all industries, and the average wage in this industry was $614, or $49 less than the State average. If this industry had been included in the man-hour list of industries, and if reports for as many as 60 percent of the wage earners in the industry had been usable (an unusually low percentage as judged by experience in other industries) the average wage of the man-hour sample would have been $706, or

[10] The number of wage earners and the average annual wage paid in certain important industries in each of the eight States under discussion are as follows, all figures pertaining to the entire census in each State:

State and industry	Number of wage earners (entire census)	Industry covered by man-hour sample	Average annual wage (entire census in State)	
			Amount	Difference from State average
Arkansas	37,280		$663	
Petroleum refining	539	Yes	1,234	+$571
Lumber	17,322	No	614	−49
Canned fruits and vegetables	2,315	No	169	−494
Louisiana	76,057		792	
Petroleum refining	4,483	Yes	1,588	+796
Lumber	20,642	No	610	−182
Canned fish	2,530	No	210	−582
Texas	129,501		1,023	
Petroleum refining	21,017	Yes	1,613	+590
Lumber	13,117	No	643	−380
District of Columbia	8,714		1,474	
Newspaper printing	1,762	No	1,892	+418
Bread	1,729	No	1,614	+140
North Dakota	2,854		1,119	
Flour milling	278	Yes	1,213	+94
Bread	516	No	1,030	−89
Butter	418	No	965	−154
Wyoming	3,795		1,375	
Petroleum refining	1,169	Yes	1,811	+436
Lumber	698	No	974	−401
New Mexico	3,683		812	
Lumber	2,030	No	699	−113
Arizona	7,193		1,196	
Copper smelting	2,262	Yes	1,518	+322
Lumber	1,527	No	852	−344

only 6.5 percent above the State average for all industries. It is obvious, therefore, that the question of adequacy of the man-hour sample in this State is very largely dependent upon whether or not the lumber industry is included.[11]

Louisiana was second in the list (in extent to which the man-hour sample deviated from the average for all industries in the State), and the situation in Louisiana was quite similar to that in Arkansas. Petroleum refining, an industry in the man-hour list, paid an average wage more than double that for all industries in the State; and the lumber and canned-fish industries, not in the man-hour list, paid wages much below the average for all industries in the State. And for the other six States mentioned above, pretty much the same situation existed.

Considering at the same time all eight States mentioned because the man-hour sample did not agree closely with the average for all industries in each of these States, in six of them the lumber industry was an important industry which was not in the man-hour list, and which paid wages below the State average for all industries. These were Wyoming and a row of contiguous Southern and Western States extending from Arkansas, through Louisiana, Texas, and New Mexico, to Arizona. For North Dakota, the important low-wage nonman-hour industries were those making bread and butter, while for the District of Columbia, the reverse situation required that the nonman-hour industries to be mentioned in this connection—newspaper printing and bakeries—pay wages above the average. As a high-wage industry in the man-hour list affecting the man-hour average in several of the States, petroleum refining was important, or at least significant, in four—Arkansas, Louisiana, Texas, and Wyoming. Copper smelting was important in Arizona, and flour milling in North Dakota; but in the District of Columbia, there was no important man-hour industry worthy of mention in this connection.

It may be desirable to point out in this connection that for a number of the lower-wage States the man-hour sample is quite accurate in its representation of all manufacturing in those States. This is true, as shown by column 7 of table 3, for most of the States of the South except those previously mentioned, and is particularly true for West Virginia, Virginia, North Carolina, Kentucky, Tennessee, South Carolina, Georgia, and Mississippi.

For most of the geographic districts as shown in table 3, the average annual wage of the man-hour sample for each entire district as a unit agrees quite closely with the average for all industries in that region. This is particularly true for New England, the Middle Atlantic States, and the Upper South; and it is fairly satisfactory for each of the other districts except the Soutnwest. The situation in the latter district is due to the fact that the district includes only the State of Texas,

[11] It is planned to include it in the census for 1939.

mentioned above in connection with the lumber and petroleum-refining industries, and a relatively small sample in Oklahoma. As to the broad areas—North, South, and West—the sample is fairly representative in all cases.

Having found the degree to which the man-hour sample is representative of all manufacturing, and particularly the States and geographic districts in which the sample represents all industries satisfactorily, the sample was used to obtain figures for certain items not heretofore obtainable on a State-wide basis. Chief among such items, perhaps, is the average hourly wage. This is given in column 4 of table 4. Other items shown for each State in the table are the average number of hours worked per month per wage earner, the value of products produced per man-hour, the value added produced per man-hour, and the number of kilowatt-hours of electric energy used per man-hour.

These figures of average earnings reveal not only broad differences [12]

[12] Small differences, on the other hand, need to be carefully studied before positive conclusions are reached as to the significance of the differences shown. For example, earnings in establishments covered in New York averaged 3.3 cents less per hour than in Pennsylvania. This difference is probably larger than that which exists between all manufacturing establishments in the two States. This presumption arises from the figures on annual earnings in table 3. While the annual average for the sample is larger in both States than for all establishments, the difference is greater in Pennsylvania than in New York. On the other hand, the annual averages for all establishments do not give the probable ratio of hourly earnings. As will be seen from table 4 (column 3), the average working time per month was 2 percent greater in New York than in Pennsylvania. This would, of course, give rise to higher annual earnings in New York if rates were the same, and is sufficient to account for more than the difference in annual earnings of $1,241 in New York and $1,233 in Pennsylvania (table 3, column 6). If working time had been the same in the two States, the New York average might have been about $24 less than it was or about 1½ percent less than the Pennsylvania average. This would indicate a difference of average hourly earnings in all manufacturing industries of about 1 cent in favor of Pennsylvania. The conclusion suggested by all of the available data therefore is that the difference of 3.3 cents for the sample should not be thought of as the difference with respect to all manufacturing but that in all manufacturing hourly earnings in Pennsylvania were somewhat higher than in New York despite the fact that average annual earnings are slightly higher in New York.

Similar differences in coverage probably account for a large part of the difference in hourly earnings existing between manufacturing establishments reporting man-hours worked in Maine and New Hampshire.

On the other hand, the difference of 3.9 cents between Rhode Island and Massachusetts appears to reflect accurately the situation in these two States. In table 3 we see that the average annual earnings in reporting establishments is almost identical with the average for all manufacturing establishments in these two States. From table 4 we see that within the reporting sample there is no difference in average hours worked per month.

Similarly the identity of average hourly earnings in all manufacturing in Georgia and in South Carolina is confirmed by an examination of annual averages in table 3 and of hours worked in table 4.

Average hourly earnings in the reporting sample of establishments are 1.6 cents lower in Florida than in Georgia. Average annual earnings in all manufacturing industries are about the same in the two States, and, if anything, are somewhat higher in Florida than in Georgia. This reversal of relationships indicates the value of having man-hour data from which average hourly earnings may be computed as well as the more usual figures on annual earnings. In the groups of industries for which man-hour data are reported, average working time per month was 170.2 hours in Florida and 154.1 hours in Georgia. If annual earnings are the same in two areas, hourly earnings are obviously lower in the area in which working time is greater. Considered in conjunction with the relatively high annual averages shown by the man-hour sample in Florida, this suggests that the difference between hourly earnings in all manufacturing establishments in Florida and Georgia may be even greater than that shown in table 4 for a sample of plants, and may in fact be as much as 3 cents.

These examples are cited not as an exhaustive analysis of the data, but as illustrating the usefulness of reported averages which do not cover all manufacturing or even all establishments within the selected industries. The averages, as has been said, refer to nearly half the wage earners in manufacturing. The sample, as has been indicated, develops significant differences in hourly earnings between industries and between regions.

but broad similarities in hourly earnings in manufacturing industries in the various States and regions. The highest average, 84.9 cents per hour, is found in Michigan; the lowest, 28.7 cents, in Mississippi. This difference arises partly from differences in wage rates for similar work, but also in large part reflects the contrast in earnings between the automobile industry, which is of outstanding importance in Michigan, and the textile industries that make up the bulk of the sample covered in Mississippi. The highest averages in general are found in the East North Central States and in the Pacific Coast States, a number of which average more than 70 cents. Average hourly earnings in the Middle Atlantic States approximate the average for the United States as a whole. On the other hand, averages of 50 to 60 cents are found in New England and of about 40 cents in the States from Florida to North Carolina.

WAGES AND HOURS OF CITRUS FRUIT PACKERS

CITRUS-FRUIT packers, whose wages and hours were surveyed by the Women's Bureau for the Wage and Hour Division of the United States Department of Labor in 1 active week of operations in the 1938–39 season, earned an average of 42.9 cents an hour in California, 33.5 cents in Florida, and 23.9 cents in Texas.[1] Long hours were worked during seasonal operations by large numbers of the employees, particularly in Florida and Texas. The majority of the workers were paid for time rather than by the piece, the proportion being especially high in Texas. In California there were nearly as many piece as time workers. Women made up 65 percent of the employees in California plants, 43 percent in Florida, and 24 percent in Texas.

At the time the study was made, the standard workweek, without payment of overtime for employees covered by the provisions of the Fair Labor Standards Act, was 44 hours and the minimum hourly wage was 25 cents. However, the longer hours and lower wages shown in the following discussion do not necessarily indicate violations of the terms of the legislation, as some plants are exempt from the act's wage provisions because they pack only their own fruit or are located in the area of production. In others the workweek chosen for investigation was apparently one in which most employers had availed themselves of the hours exemption granted fruit and vegetable packers for 14 weeks in the calendar year.

Of 14,200 employees in 251 citrus-fruit packing plants for whom data were obtained, 7,372 workers were in California, 4,198 in Florida, and 2,630 in Texas. The industry as a whole is estimated to employ

[1] U. S. Department of Labor. Wages and Hour Division. The Citrus Fruit Packing Industry under the Fair Labor Standards Act, Washington, 1940; and Press release No. R-760.

approximately 50,000 workers at some time during the year. Two occupations—packing (40.9 percent) and general plant labor (33.4 percent)—accounted for nearly three-fourths of the workers surveyed. Preparation labor represented 17.0 percent of the total and the remaining employees were truckers, key workers, office, and supervisory employees.

The percentage distribution of employees according to hourly earnings is shown in table 1 for one active week in the 1938–39 season. In all, 6.6 percent of the total number of employees covered earned less than 25 cents an hour, as compared with 0.9 percent in California, 2.4 percent in Florida, and 42.3 percent in Texas. About 69 percent of the California workers earned 40 cents an hour or over. The corresponding percentage for Florida is 18.6 and for Texas 2.1.

TABLE 1.—*Distribution of Citrus-Fruit Packing Employees by Earnings and States, 1 Week in 1938–39*

Hourly earnings	Total		California		Florida		Texas	
	Percent of total	Cumulative percentage	Percent of total	Cumulative percentage	Percent of total	Cumulative percentage	Percent of total	Cumulative percentage
Under 15 cents	0.1	0.1	0.2	0.2			0.3	0.3
15 cents	1.3	1.4	(1)	.2	(1)	(1)	9.8	10.1
16 and under 20 cents	.8	2.2	.1	.3	0.7	0.7	4.4	14.5
20 cents	3.7	5.9	.1	.4	.7	1.4	26.6	41.1
21 and under 25 cents	.7	6.6	.5	.9	1.0	2.4	1.2	42.3
25 cents	12.9	19.5	2.0	2.9	24.9	27.3	42.9	85.2
26 and under 30 cents	2.2	21.7	.9	3.8	5.8	33.1	1.5	86.7
30 cents	7.9	29.6	1.3	5.1	25.1	58.2	7.9	94.6
31 and under 35 cents	8.3	37.9	10.3	15.4	7.6	65.8	.4	95.0
35 cents	6.5	44.4	5.8	21.2	10.2	76.0	2.8	97.8
36 and under 40 cents	7.5	51.9	9.7	30.9	5.4	81.4	.1	97.9
40 cents	13.4	65.3	19.0	49.9	5.5	86.9	.5	98.4
41 and under 45 cents	7.5	72.8	11.2	61.1	2.2	89.1		98.4
45 cents	6.7	79.5	10.0	71.1	1.8	90.9	.1	98.5
46 and under 50 cents	5.8	85.3	8.4	79.5	1.8	92.7	.1	98.6
50 cents and over	14.7	100.0	20.5	100.0	7.3	100.0	1.4	100.0
Employees covered	10,932		6,869		2,621		1,442	
Number of plants	251		98		88		65	
Average hourly earnings (in cents)	38.1		42.9		33.5		23.9	

[1] Less than 0.05 percent.

Comparing earnings for individual occupations as well as for all occupations combined, employees in California were the highest paid, followed by Florida and then Texas. For example, the average hourly earnings of general laborers were 43.7 cents in California, 29.4 cents in Florida, and 22.7 cents in Texas.

Little significant difference was shown in earnings of workers engaged in rural and in urban plants. Hourly earnings of California citrus-fruit workers averaged 43.0 cents in towns of less than 2,500 inhabitants and 42.9 cents in larger towns. The proportion of workers

earning less than 25 cents an hour was larger in rural packing houses than in urban establishments in Florida. The reverse was true in Texas. In California nearly 19 percent of the workers in rural plants earned less than 35 cents an hour, but for urban establishments the proportion was lower, amounting to 13 percent.

In California average hourly earnings decreased as the number of employees in the plant increased. The reverse tendency was shown in Florida and Texas, and for all three States the average varied directly with the size of the establishment.

Pay-roll information obtained for 217 plants in a representative week in 1937–38 and 1938–39, before and after the wage and hour law became effective, showed an improvement in earnings of low-paid citrus packing-house workers.

In the representative 1938–39 pay-roll period for which information was obtained, 31.3 percent of the Florida workers, 33.3 percent of those in Texas, and 9.4 percent of the sample for California worked 60 hours or more. In the report here reviewed, the smallness of the proportion of employees working long hours in California is attributed in part to the State law limiting working time for women and minors to 8 hours per day and 48 per week, extra payment for overtime being required. As already stated, woman workers predominated in California. The percentage distribution of working time is shown in table 2, by States, for 1 active week in the 1938–39 period. Nearly half of the employees covered in California worked 40 hours or under in this 1-week period, as compared with approximately one-third in the States of Florida and Texas.

TABLE 2.—*Distribution of Citrus-Fruit Packing Employees by Hours Worked and States, 1 Week in 1938–39*

Hours worked per week	Total		California		Florida		Texas	
	Percent of total	Cumulative percentage	Percent of total	Cumulative percentage	Percent of total	Cumulative percentage	Percent of total	Cumulative percentage
Under 40	40.4	40.4	45.0	45.0	34.1	34.1	33.8	33.8
40	1.6	42.0	2.2	47.2	.6	34.7	.7	34.5
Over 40 and under 42	3.5	45.5	4.7	51.9	2.2	36.9	.8	35.3
42	1.3	46.8	.6	52.5	2.0	38.9	2.5	37.9
Over 42 and under 44	4.1	50.9	5.8	58.3	1.8	40.7	1.7	39.5
44	.9	51.8	.8	59.1	.9	41.6	1.1	40.6
Over 44 and under 48	8.8	60.6	11.4	70.5	5.9	47.5	3.7	44.3
48	.8	61.4	.7	71.2	1.1	48.6	.8	45.1
Over 48 and under 56	13.4	74.8	14.1	85.3	11.9	60.5	13.7	58.8
56	1.1	75.9	.4	85.7	2.1	62.6	1.7	60.5
Over 56 and under 60	5.4	81.3	4.9	90.6	6.1	68.7	6.2	66.7
60 and under 80	14.4	95.7	7.9	98.5	22.6	91.3	26.1	92.8
80 and over	4.3	100.0	1.5	100.0	8.7	100.0	7.2	100.0
Employees with hours reported	9,950		5,887		2,621		1,442	

Hours in rural plants in Florida and Texas were longer than in urban plants (those located in towns of 2,500 population or over). The reverse was true in California. For all three States, 52.2 percent of the employees covered worked over 44 hours during the week in rural areas, as compared with 45.3 percent in urban establishments. The proportion of employees working 80 hours and over was slightly larger in rural than in urban packing plants in all three States.

Hours varied according to occupations which, in turn, reflected sex differentials, the original report states. For example, in the preparation departments of California packing houses 44 hours or less were worked by about 69 percent of the laborers as compared with 41 percent of the key workers in the same departments.

WAGES OF POLES AND GERMANS IN POLAND

THE following figures show the wages paid in 1940 to the Polish and German workers for the same work in the public service in that part of Poland taken over by Germany. The data for the German workers are taken from the wage scales of the German Wage Bureau and the wage rates for Polish workers from the Official Journal of the Governor General of the Occupied Poland, part II, No. 5, February 1940, as reported in the Bulletin of the International Transportworkers Federation for March 16, 1940.

Wage Rates of Polish and German Workers in Specified Localities of German-Occupied Poland

Class of workers	Cracow and Warsaw		Other localities	
	Germans	Poles	Germans	Poles
	Hourly rates (in zloty [1])			
Wage earners:				
Unskilled	1.16	0.58	1.00–1.08	0.50
Semiskilled	1.22	.72	1.05–1.13	.62
Skilled	1.39	1.02	1.20–1.30	.88
Foremen	1.62	1.16	1.40–1.51	1.00
Females	.87	.46	.75– .81	.40
	Monthly rates (in zloty)			
Salaried employees:				
Mechanics	332.00	195.00	303.00	170.00
Commercial and technical employees	386.00–502.00	300.00	347.00–463.00	260.00
Supervisory employees	647.00–828.00	402.00	592.00–748.00	350.00
Commercial and technical employers, university graduates	1,136.00–1,468.00	483.00	854.00–1,172.00	420.00

[1] Average exchange rate of zloty in March 1939=18.9 cents. (Later quotations not available.)

NEW WAGE SCALE FOR SWEDISH SEAMEN

A NEW trade agreement between the Swedish Shipowners' Association and the Swedish Seamen's Union became effective February 1, 1940.[1] Substantial increases in wages were granted; and a sliding wage scale, in effect from May 1, 1940, provided for adjustment of wages to take place at the beginning of the second month of the calendar quarter, if the cost-of-living index number at the beginning of the quarter is not less than six points above the index ruling either at the time of the previous adjustment of wages or, if such adjustment has not taken place, on January 1, 1940.

If the index number falls, adjustment downwards is to be made as above, but in no case may deduction be made from the wage rates provided by the agreement.

The new rates and those previously in effect are shown below.

Monthly wage rates of Swedish seamen, 1939 and 1940

	February 1, 1940 Kronor [2]	*February 1, 1939 Kronor* [2]
Deck and engine room department:		
Carpenters	195	180
Boatswains	195	180
Able seamen	185	170
Ordinary seamen	125	115
Motormen and donkeymen	195	180
Firemen	185	170
Greasers	190	175
Trimmers	115	105
Catering department:		
Steward and cook-steward	210–345	190–325
Cook	185–245	170–230
Messroom boy	50–70	45–70

[2] Average exchange rate of krona in February 1940=23.8 cents.

Men on tankers receive an extra allowance of 5 percent of basic wages. Carpenters with their own tools receive a special allowance of 15 kronor a month. In case the agreement is not terminated before November 30, 1940, it will be regarded as extended for a year.

[1] International Transport Workers' Federation, Kempston Beds, England. Press report, April 1, 1940.

Labor Turn-Over

LABOR TURN-OVER IN MANUFACTURING, MARCH 1940

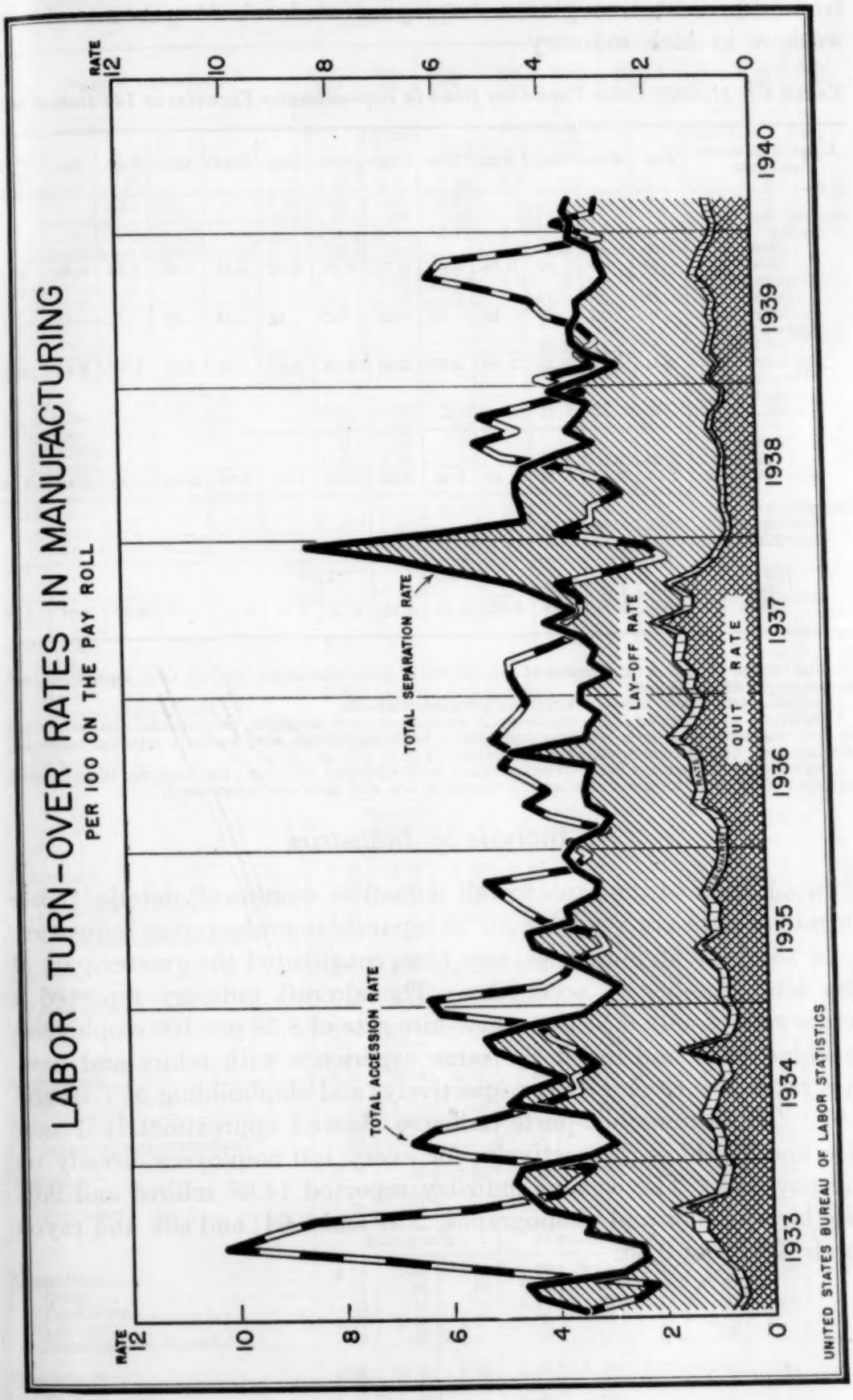
SEPARATIONS per 100 employees decreased from 3.56 in February to 3.46 in March, while the rate of accessions remained practically unchanged, dropping slightly from 2.98 to 2.94. A decline in the lay-off rate from 2.67 to 2.53 more than offset the slight increase in the quit rate, from 0.62 to 0.67. Notable for decreases in the lay-off rate were aircraft, automobile parts, brick, tile, and terra cotta, furniture, radio, and meat-packing industries. On the other hand, industries with sizable increases in the lay-off rate were automobiles, cotton, glass, men's clothing, petroleum refining, and woolen and worsted goods manufacturing. The rates for discharges and miscellaneous separations remained at February levels.

Although the change in total accessions was slight, considerable differences were found in the experiences of individual industries. High accession rates were found particularly in industries which reflected the increased activity in construction; namely, brick, cement, and sawmills. As in the case of separations, considerable differences were found in the rates which made up the accession total. Whereas the rehire rate, reflecting the placing on the pay roll of former employees who had been separated for less than 3 months, rose from 1.26 to 1.38, the rate for hiring of other workers decreased from 1.72 to 1.56. Sharpest increases in the rehire rate were found for brick, tile, and terra cotta, cement, and radio industries. Industries with sizable decreases in the hiring rate for new employees were automobile parts, electrical machinery, machine tools, and woolen and worsted goods.

All Manufacturing

The Bureau of Labor Statistics' survey of labor turn-over covers approximately 5,700 representative manufacturing establishments, which in March, employed more than 2,530,000 workers. The rates represent the number of changes in personnel per 100 employees on the pay rolls during the month.

The rates shown in table 1 are compiled from reports received from representative plants in 144 industries. In the 33 industries for


LABOR TURN-OVER RATES IN MANUFACTURING
PER 100 ON THE PAY ROLL
RATE
12
10
8
6
4
2
0
1933
1934
1935
1936
1937
1938
1939
1940
TOTAL ACCESSION RATE
TOTAL SEPARATION RATE
LAY-OFF RATE
QUIT RATE
UNITED STATES BUREAU OF LABOR STATISTICS

which separate rates are published (see table 2), reports were received from representative plants employing at least 25 percent of the workers in each industry.

TABLE 1.—*Monthly Labor Turn-Over Rates in Representative Factories in 144 Industries*[1]

Class of turnover and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
Separations:													
Quits:													
1940	0.63	0.62	0.67										
1939	.85	.64	.82	0.76	0.68	0.73	0.70	0.82	1.07	0.93	0.83	0.69	0.79
Discharges:													
1940	.14	.16	.15										
1939	.10	.10	.13	.10	.13	.12	.12	.14	.14	.17	.15	.12	.13
Lay-offs:[2]													
1940	2.55	2.67	2.53										
1939	2.24	1.87	2.23	2.60	2.67	2.46	2.54	2.05	1.58	1.81	1.97	2.65	2.22
Miscellaneous separations,[3]													
1940	.11	.11	.11										
Total:													
1940	3.43	3.56	3.46										
1939	3.19	2.61	3.18	3.46	3.48	3.31	3.36	3.01	2.7*v*	2.91	2.95	3.46	3.14
Accessions:[4]													
Rehires, 1940	1.96	1.26	1.35										
New hires, 1940	1.78	1.72	1.56										
Total:													
1940	3.74	2.98	2.94										
1939	4.09	3.06	3.34	2.93	3.29	3.92	4.16	5.06	6.17	5.89	4.10	2.84	4.07

[1] The various turn-over rates represent the number of quits, discharges, lay-offs, total separations, and accessions per 100 employees.
[2] Including temporary, indeterminate, and permanent lay-offs.
[3] Beginning with January 1940, miscellaneous separations, such as deaths, permanently disabled, retired on pensions, etc., have been reported separately. Such separations were formerly reported under the classification "quits and miscellaneous separations."
[4] Beginning with January 1940, accessions have been separated into two classifications; rehires, which include workers hired after a separation of 3 months or less, and other employees hired.

Analysis by Industries

In addition to the rates for all industries combined, detailed labor turn-over data are available for 33 separate manufacturing industries.

In 15 of the 33 industries, new hires constituted the greater part of the total number of accessions. The aircraft industry reported a rehire rate of only 0.51 but a new-hire rate of 8.38 per 100 employees; machine tools had much the same experience with rehire and new-hire rates of 0.10 and 3.87, respectively, and shipbuilding of 1.12 and 5.92. The automobile-parts industry showed approximately 1 new hire and 2 rehires, respectively, for every 100 employees already on the pay roll. The cement industry reported 14.68 rehires and 2.08 new hires; radios and phonographs, 2.51 and 0.94; and silk and rayon goods, 2.61 and 0.86.

TABLE 2.—*Monthly Labor Turn-Over Rates (per 100 Factory Employees) in 33 Manufacturing Industries*

Class of turn-over	Mar. 1940	Feb. 1940	Mar. 1939	Mar. 1940	Feb. 1940	Mar. 1939	Mar. 1940	Feb. 1940	Mar. 1939
	Aircraft			Automobiles and bodies			Automobile parts		
Separations	4.19	6.38	3.83	3.15	2.42	5.10	5.71	8.56	4.42
Quits	1.55	1.80	2.26	.74	.64	.59	.62	.70	.58
Discharges	.42	.37	.28	.06	.05	.07	.12	.25	.14
Lay-offs	2.20	4.20	1.29	2.19	1.61	4.44	4.87	7.46	3.70
Miscellaneous separations [1]	.02	.01	-------	.16	.12	-------	.10	.15	-------
Accessions [2]	8.89	6.92	11.95	2.30	2.35	2.56	3.64	3.41	4.31
Rehires	.51	1.01	-------	1.45	1.64	-------	2.34	1.44	-------
New hires	8.38	5.91	-------	.85	.71	-------	1.30	1.97	-------
	Boots and shoes			Brick, tile, and terra cotta			Cast-iron pipe		
Separations	2.70	2.08	2.37	4.45	7.37	2.74	2.50	1.57	0.92
Quits	.68	.61	.82	.51	.35	.59	.74	.40	.45
Discharges	.11	.14	.19	.04	.06	.11	.13	.11	.07
Lay-offs	1.79	1.29	1.36	3.79	6.80	2.04	1.59	.83	.40
Miscellaneous separations [1]	.12	.04	-------	.11	.16	-------	.04	.23	-------
Accessions [2]	2.07	2.62	2.21	6.61	4.79	8.90	1.02	1.41	2.86
Rehires	1.02	1.20	-------	4.34	2.94	-------	.43	.87	-------
New hires	1.05	1.42	-------	2.27	1.85	-------	.59	.54	-------
	Cement			Cigars and cigarettes			Cotton manufacturing		
Separations	4.18	5.17	2.74	2.95	2.05	3.72	4.86	4.10	3.88
Quits	.19	.08	.27	1.17	.88	1.20	1.20	1.09	1.47
Discharges	.05	.12	.05	.14	.14	.13	.21	.20	.20
Lay-offs	3.84	4.88	2.42	1.52	.78	2.39	3.27	2.61	2.21
Miscellaneous separations [1]	.10	.09	-------	.12	.25	-------	.18	.20	-------
Accessions [2]	16.76	6.66	15.21	2.77	3.29	3.63	2.53	2.98	3.08
Rehires	14.68	5.89	-------	1.50	2.40	-------	.90	1.03	-------
New hires	2.08	.77	-------	1.27	.89	-------	1.63	1.95	-------
	Electrical machinery			Foundries and machine shops			Furniture		
Separations	2.20	2.22	2.16	3.28	3.03	1.92	3.33	4.52	3.47
Quits	.40	.43	.58	.57	.51	.54	.68	.67	.72
Discharges	.11	.08	.05	.17	.17	.09	.22	.30	.32
Lay-offs	1.36	1.48	1.53	2.43	2.26	1.29	2.33	3.43	2.43
Miscellaneous separations [1]	.33	.23	-------	.11	.09	-------	.10	.12	-------
Accessions [2]	2.45	3.01	3.23	2.51	2.31	3.04	3.30	2.89	4.45
Rehires	.82	.80	-------	.58	.50	-------	1.56	1.15	-------
New hires	1.63	2.21	-------	1.93	1.81	-------	1.74	1.74	-------
	Glass			Hardware			Iron and steel		
Separations	3.59	2.44	2.93	2.85	2.84	2.33	4.36	4.23	1.33
Quits	.56	.30	.21	.47	.55	.56	.35	.37	.38
Discharges	.08	.12	.04	.16	.12	.20	.08	.20	.04
Lay-offs	2.87	1.95	2.68	2.12	2.12	1.57	3.81	3.53	.91
Miscellaneous separations [1]	.08	.07	-------	.10	.05	-------	.12	.13	-------
Accessions [2]	2.70	1.53	2.65	1.22	.96	2.37	.88	.66	1.52
Rehires	1.52	1.02	-------	.44	.17	-------	.51	.35	-------
New hires	1.18	.51	-------	.78	.79	-------	.37	.31	-------
	Knit goods			Machine tools			Men's clothing		
Separations	2.66	2.45	2.31	1.99	2.08	1.36	3.71	1.96	3.84
Quits	.74	.64	.93	1.21	.98	.56	.80	.61	.73
Discharges	.12	.15	.11	.41	.53	.13	.10	.09	.14
Lay-offs	1.77	1.59	1.27	.28	.47	.67	2.71	1.19	2.97
Miscellaneous separations [1]	.03	.07	-------	.09	.10	-------	.10	.07	-------
Accessions [2]	2.63	2.56	3.04	3.97	5.10	3.63	2.42	2.84	3.92
Rehires	1.42	1.21	-------	.10	.24	-------	1.33	1.28	-------
New hires	1.21	1.35	-------	3.87	4.86	-------	1.09	1.56	-------

See footnotes at end of table.

TABLE 2.—*Monthly Labor Turn-Over Rates (per 100 Factory Employees) in 33 Manufacturing Industries*—Continued

Class of turn-over	Mar. 1940	Feb. 1940	Mar. 1939	Mar. 1940	Feb. 1940	Mar. 1939	Mar. 1940	Feb. 1940	Mar. 1939
	Paints and varnishes			Paper and pulp			Petroleum refining		
Separations	1.61	2.25	2.80	1.78	1.64	1.61	2.21	1.25	1.47
Quits	.45	.44	1.30	.35	.42	.55	.21	.16	.19
Discharges	.17	.12	.46	.11	.13	.12	.04	.17	.06
Lay-offs	.94	1.62	1.04	1.16	.95	.94	1.84	.82	1.22
Miscellaneous separations [1]	.05	.07	-------	.16	.14	-------	.12	.10	-------
Accessions [2]	1.94	1.64	3.53	1.37	1.30	2.02	2.41	1.76	2.08
Rehires	.55	.25	-------	.58	.49	-------	.96	.86	-------
New hires	1.39	1.39	-------	.79	.81	-------	1.45	.90	-------
	Printing and publishing						Radios and phonographs		
	Book and job			Newspapers					
Separations	4.41	4.49	4.86	1.78	1.57	2.14	4.71	10.47	5.48
Quits	.46	.39	.38	.36	.21	.17	1.17	1.28	1.22
Discharges	.26	.23	.21	.09	.09	.22	.10	.18	.17
Lay-offs	3.50	3.78	4.27	1.30	1.21	1.75	3.43	8.99	4.09
Miscellaneous separations [1]	.19	.09	-------	.03	.06	-------	.01	.02	-------
Accessions [2]	4.06	4.36	3.88	2.42	2.64	2.91	3.45	3.29	4.58
Rehires	2.35	2.81	-------	1.42	1.26	-------	2.51	1.92	-------
New hires	1.71	1.55	-------	1.00	1.38	-------	.94	1.37	-------
	Rayon and allied products			Rubber boots and shoes			Rubber tires		
Separations	3.20	1.38	1.89	3.41	4.91	1.41	3.03	1.91	1.47
Quits	1.67	.33	.55	.43	.52	.83	.33	.23	.57
Discharges	.09	.11	.09	.17	.06	.03	.05	.03	.05
Lay-offs	1.42	.89	1.25	2.48	3.99	.55	2.50	1.56	.85
Miscellaneous separations [1]	.02	.05	-------	.33	.34	-------	.15	.09	-------
Accessions [2]	3.50	1.66	1.57	2.00	.96	2.26	.87	.84	2.46
Rehires	.91	.87	-------	1.57	.74	-------	.66	.56	-------
New hires	2.59	.79	-------	.43	.22	-------	.21	.28	-------
	Sawmills			Shipbuilding			Silk and rayon goods		
Separations	4.21	4.27	7.17	5.01	4.39	1.97	3.80	5.14	4.82
Quits	.96	.84	3.52	.95	.70	.73	.68	.85	1.32
Discharges	.23	.20	.17	.33	.16	.07	.12	.08	.12
Lay-offs	2.92	3.13	3.48	3.65	3.47	1.17	2.95	4.18	3.38
Miscellaneou separations [1]	.10	.10	-------	.08	.06	-------	.05	.03	-------
Accessions [2]	5.09	4.38	5.78	7.04	6.60	4.79	3.47	2.55	3.14
Rehires	3.00	2.31	-------	1.12	2.43	-------	2.61	1.68	-------
New hires	2.09	2.07	-------	5.92	4.17	-------	.86	.87	-------
	Slaughtering and meat packing			Steam and hot-water heating apparatus			Woolen and worsted goods		
Separations	7.19	9.59	7.24	2.25	1.65	1.46	11.39	9.06	10.26
Quits	.46	.42	.46	.51	.40	.59	.60	.81	.74
Discharges	.14	.22	.13	.08	.09	.05	.21	.18	.18
Lay-offs	6.47	8.72	6.65	1.59	1.07	.82	10.13	7.87	9.34
Miscellaneous separations [1]	.12	.23	-------	.07	.09	-------	.45	.20	-------
Accessions [2]	5.18	4.90	6.14	1.63	2.20	2.24	1.99	3.47	3.51
Rehires	3.46	3.65	-------	.39	.89	-------	1.47	1.81	-------
New hires	1.72	1.25	-------	1.24	1.31	-------	.52	1.66	-------

[1] Prior to January 1940 miscellaneous separations were included with "quits."
[2] No break-down of accessions prior to January 1940.

Trends of Employments and Pay Rolls

SUMMARY OF REPORTS FOR APRIL 1940

Total Nonagricultural Employment

THERE was little change in nonagricultural employment in April as compared with March, although ordinarily there is a substantial gain at this time of year. Increases in public and private construction, the construction-material industries, and quarrying and metal mining were largely offset by further reductions of 96,000 workers in factory employment and the decline of 42,000 in retail trade. Notable exceptions to the general decline in manufacturing were the gains in the war-supply and food-manufacturing industries.

The reductions in retail trade in April resulted largely from the release of temporary workers engaged in March to handle the Easter trade and early spring business. Anthracite- and bituminous-coal mines reported 18,000 fewer workers and class I steam railroads 2,200 fewer employees.

Compared with April a year ago, employment in nonagricultural industries, including regular government services, showed a gain of about three-quarters of a million persons after allowing for the unusual situation in April of last year when nearly 300,000 coal miners were not at work pending the signing of new wage agreements.

These figures do not include emergency employment which decreased 207,000. A decrease of 201,000 on projects operated by the Work Projects Administration and one of 14,000 on the Out-of-School Work Program of the National Youth Administration together with an increase of 8,000 in the Civilian Conservation Corps resulted in a net decrease of 207,000.

Industrial and Business Employment

Employment declines from March to April were reported by 64 of the 90 manufacturing industries surveyed and by 5 of the 16 nonmanufacturing industries covered. Pay-roll decreases were shown by 51 of the manufacturing and 6 of the nonmanufacturing industries.

Factory employment showed a decline of 1.2 percent, or 96,000 wage earners, and weekly factory pay rolls fell 1.9 percent, or about $3,600,000. The seasonally expected changes for April are decreases of 0.1 percent for employment (8,000 workers) and 0.8 percent for pay rolls ($1,500,000). The more important decreases in manufac-

turing employment, for the most part larger than seasonal, were women's clothing (16,700 workers), men's clothing (15,300), steel (12,600), shoes (9,800), automobiles (9,700), woolen and worsted goods (8,400), cotton goods (5,700), and meat packing (4,800).

Among the more important employment increases, which were seasonal except for shipbuilding and aircraft, were canning and preserving (12,700 workers), fertilizers (4,200), sawmills (3,800), brick, tile, and terra cotta (3,700), cement (3,100), aircraft (1,900), beverages (1,900), and shipbuilding (1,100).

The effect of Government and war-time orders was particularly evident in the aircraft and machine-tool industries in which employment levels were at new all-time highs. Aircraft firms employed nearly twice as many workers as in April of last year, and machine-tool factories showed an employment gain of more than 50 percent over this same period. Shipyards had about one-third more workers than a year ago and showed the highest employment levels since 1921. Engine factories showed an employment gain of 50 percent over April of last year. The employment index for this industry was higher than in any month since January 1923 (when the Bureau's series began), except March and April 1929. Manufacturers of explosives reported an employment gain of 35 percent over April of last year.

Retail stores released 1.2 percent (42,000) of their employees between March 15 and April 15 as sales slackened following the Easter trade. Employment decreases in individual lines of retail trade were largest in shoe stores (13.3 percent), variety stores (7.5 percent), men's and boys' clothing stores (5.3 percent), family clothing stores (5.0 percent), women's ready-to-wear clothing stores (4.3 percent), and department stores and mail-order houses (2.2 percent). Among retail dealers reporting a seasonal employment pick-up in April were automobile and lumber dealers (2.9 percent each), dealers in farmers' supplies (2.2 percent), hardware and farm-implement stores (1.7 percent), and furniture stores (0.6 percent).

Employment in wholesale trade fell 1.6 percent with seasonal curtailments most pronounced among dealers in farm products and agents and brokers.

Employment in coal mines was reduced by 18,000 workers. The corresponding weekly pay-roll reduction of $855,000 was comparatively sharper, partly because of curtailed production resulting from a holiday in the bituminous-coal fields during the week ending April 6. The employment increase of 11.7 percent in private building construction was shared by all of the geographic divisions, with the most substantial increases occurring in New England (18.8 percent) and the West North Central States (21.3 percent).

A preliminary report of the Interstate Commerce Commission shows an employment decline by class I railroads of 0.4 percent, or 2,200 workers, between March and April. The total number employed in

April was 984,622. Corresponding pay-roll figures were not available when this report was prepared. For March they were $157,722,641, a gain of 3.2 percent.

Hours and earnings.—The average hours worked per week by manufacturing wage earners were 37.2 in April, a decrease of 1.0 percent since March. The corresponding average hourly earnings were 66.5 cents, an increase of 0.1 percent from the preceding month. The average weekly earnings of factory workers were $25.33, a decrease of 0.7 percent since March.

Of the 14 nonmanufacturing industries for which man-hours are available, 9 showed an increase in average hours worked per week and 7 reported gains in average hourly earnings. Eleven of the sixteen nonmanufacturing industries surveyed reported higher weekly earnings.

TABLE 1.—*Employment, Pay Rolls, and Earnings in All Manufacturing Industries Combined and in Nonmanufacturing Industries, April 1940 (Preliminary Figures)*

Industry	Employment			Pay rolls			Average weekly earnings		
	Index, April 1940	Percentage change from—		Index, April 1940	Percentage change from—		Average in April 1940	Percentage change from—	
		March 1940	April 1939		March 1940	April 1939		March 1940	April 1939
All manufacturing industries combined [1]	(*1923–25 = 100*) 99.6	−1.2	+5.8	(*1923–25 = 100*) 96.3	−1.9	+12.6	$25.33	−0.7	+6.4
Class I steam railroads [2]	55.1	−.4	+3.6	([3])	([3])	([3])	([3])	([3])	([3])
Coal mining:	(*1929 = 100*)			(*1929 = 100*)					
Anthracite [4]	51.6	−1.8	−2.6	36.3	−5.6	−16.5	23.11	−3.8	−14.2
Bituminous [4]	86.0	−4.1	+232.7	71.4	−8.8	+304.5	22.42	−4.9	+21.6
Metalliferous mining	67.6	+2.1	+10.0	63.1	−.1	+19.8	20.23	−2.2	+9.0
Quarrying and nonmetallic mining	44.8	+9.1	+4.2	38.5	+12.7	+7.3	21.34	+3.3	+2.9
Crude-petroleum production	63.2	+([5])	−4.0	58.6	+.4	−3.6	34.16	+.4	+.3
Public utilities:									
Telephone and telegraph [6]	76.5	+.8	+1.8	99.3	+1.3	+5.6	[7]31.90	+.5	+3.7
Electric light and power [6]	90.3	+1.1	+3.0	103.7	+1.4	+5.5	[7]35.04	+.2	+2.5
Street railways and busses [6 8]	68.5	+.3	−.1	69.3	−.3	+1.3	[7]33.40	−.6	+1.3
Trade:									
Wholesale [9]	89.0	−1.6	+2.0	77.2	−.9	+3.2	[7]30.32	+.8	+1.2
Retail [9]	90.0	−1.2	+1.7	82.3	+.4	+3.4	[7]21.41	+1.6	+1.7
Hotels (year-round) [4 10]	92.6	+.6	−.7	83.0	+1.4	+1.3	[7]15.56	+.8	+2.0
Laundries [4]	97.3	+1.1	+4.0	85.7	+1.9	+7.2	18.01	+.8	+3.1
Dyeing and cleaning [4]	104.8	+5.3	+2.6	80.1	+10.1	+9.3	21.03	+4.6	+6.6
Brokerage	([3])	−.4	−2.5	([3])	+1.8	−1.7	[7]37.75	+2.2	+.8
Insurance	([3])	+.1	+1.1	([3])	−.6	+1.2	[7]36.55	−.7	+.1
Building construction	([3])	+11.7	−1.0	([3])	+13.3	+.2	30.32	+1.4	+1.1

[1] Revised indexes—adjusted to 1937 Census of Manufactures.
[2] Preliminary; source.—Interstate Commerce Commission.
[3] Not available.
[4] Indexes adjusted to 1935 census. Comparable series back to January 1929 presented in January 1938 issue of the pamphlet, "Employment and Pay Rolls."
[5] Less than 1/10 of 1 percent.
[6] Retail-trade indexes adjusted to 1935 census and public-utility indexes to 1937 census. Not comparable with indexes published in pamphlets prior to January 1940 or in the Monthly Labor Review prior to April 1940. Revised series available upon request.
[7] Average weekly earnings not strictly comparable with figures published in issues of the pamphlet dated earlier than January 1938, or the Monthly Labor Review dated earlier than April 1938 (except for the January figures appearing in the March issue), as they now exclude corporation officers, executives, and other employees whose duties are mainly supervisory.
[8] Covers street railways and trolley and motorbus operations of subsidiary, affiliated, and successor companies.
[9] Indexes adjusted to 1933 census. Comparable series in November 1934 and subsequent issues of pamphlet or February 1935 and subsequent issues of Monthly Labor Review.
[10] Cash payments only; the additional value of board, room, and tips cannot be computed.

Employment and pay-roll indexes and average weekly earnings for April 1940 are given in table 1 for all manufacturing industries combined, for selected nonmanufacturing industries, and for class I railroads. Percentage changes over the month and year intervals are also given.

Public Employment

Seasonal influences were responsible for the first employment gain since June 1939 on construction projects financed by the Public Works Administration. About 99,000 men were working on these projects during the month ending April 15, a gain of 1,000 over the preceding month. Pay-roll disbursements of $9,918,000 were $604,000 more than in March.

Increased activity on the United States Housing Authority program during the month ending April 15 resulted in an employment gain of 6,000 on low-rent housing projects. Wage payments of $3,835,000 to the 39,000 building-trades workers on these projects were $940,000 more than in March.

Employment on construction projects financed from regular Federal appropriations showed a seasonal increase of 29,000 in the month ending April 15. Gains were reported on all types of projects except those of the Rural Electrification Administration. The number of persons at work on all projects financed from regular funds was 249,000. Pay-roll disbursements of $26,976,000 were $4,017,000 more than in March.

The number of workers employed on construction projects financed by the Reconstruction Finance Corporation fell to approximately 2,100 during the month ending April 15. Pay rolls of $249,000 for the month were $16,000 less than in the preceding month.

Employment on work-relief projects of the Work Projects Administration declined considerably in April. The decline was due in part to curtailment necessary to bring the relief program within the limits of available funds and in part to the lessening of relief needs after the seasonal peak. In April the number of persons at work on these projects was 2,011,000, a decrease of 201,000 from March. Pay rolls of $116,145,000 were $4,540,000 less than in March. As compared with April 1939 there were 618,000 fewer persons on WPA projects. Federal Agency projects financed by the Work Projects Administration furnished employment to 99,000 persons in April, 5,000 more than in March.

Employment in camps of the Civilian Conservation Corps rose 8,000 in April. Of the 314,400 on the pay roll, 277,800 were enrollees; 1,600, educational advisers; 250, nurses; and 34,750, supervisory and technical employees.

Increased employment was reported in all four regular services of the Federal Government. Of the 959,000 employees in the executive service, 130,000 were working in the District of Columbia and 829,000 outside the District. Force-account employees (employees on the pay roll of the United States Government who are engaged on construction projects and whose period of employment terminates as the project is completed) were 9 percent of the total number of employees in the executive service. Employment increases were reported in the War and Navy Departments, the Departments of Interior, Agriculture, and Commerce, and in the Panama Canal Zone while a decrease was reported in the Post Office Department.

The number of men at work on State-financed road projects increased 17,000 in April. Of the 144,000 at work, 33,000 were engaged in the construction of new roads and 111,000 on maintenance. Pay rolls for both types of road work were $10,877,000.

A summary of Federal employment and pay-roll data for April is given in table 2.

TABLE 2.—*Summary of Federal Employment and Pay Rolls, April and March 1940 (Preliminary Figures)* [1]

Class	Employment			Pay rolls		
	April	March	Percentage change	April	March	Percentage change
Federal services						
Executive [2]	959,146	945,836	+1.4	$144,837,840	$143,912,185	+0.6
Judicial	2,480	2,379	+4.2	576,074	577,807	+3.2
Legislative	5,882	5,860	+.4	1,305,782	1,299,641	+.5
Military	460,969	456,802	+.9	32,164,921	32,275,327	−.3
Construction projects:						
Financed by PWA [3]	99,126	97,834	+1.3	9,918,076	9,314,198	+6.5
USHA low-rent housing	38,881	33,445	+16.3	3,834,716	2,895,069	+32.5
Financed by RFC [4]	2,051	2,302	−10.9	248,607	264,600	−6.0
Financed by regular Federal appropriations	248,824	220,310	+12.9	26,955,937	22,958,657	+17.5
Federal agency projects financed by WPA	99,484	94,326	+5.5	4,704,767	4,354,333	+8.0
Projects operated by WPA	2,010,598	2,212,239	−9.1	116,145,146	120,684,852	−3.8
National Youth Administration:						
Out-of-school work program	322,275	336,282	−4.2	5,933,159	6,264,303	−5.3
Student work program	481,809	473,485	+1.8	3,375,847	3,273,980	+3.1
Civilian Conservation Corps	314,400	306,019	+2.7	14,023,330	13,714,184	+2.3

[1] Includes data on projects financed wholly or partially from Federal funds.

[2] Includes force-account and supervisory and technical employees shown under other classifications to the extent of 123,628 employees and pay-roll disbursements of $16,502,271 for April 1940, and 121,601 employees and pay-roll disbursements of $16,042,779 for March 1940.

[3] Data covering PWA projects financed from National Industrial Recovery Act funds, Emergency Relief Appropriation Acts of 1935, 1936, and 1937 funds, and Public Works Administration Appropriation Act of 1938 funds are included. These data are not shown under projects financed by the Work Projects Administration. Includes 7,875 wage earners and $739,269 pay roll for April 1940; 7,813 wage earners and $685,082 pay roll for March 1940, covering Public Works Administration projects financed from Emergency Relief Appropriation Acts of 1935, 1936, and 1937 funds. Includes 87,252 wage earners and $8,734,152 pay roll for April 1940; 86,070 wage earners and $8,216,545 pay roll for March 1940, covering Public Works Administration projects financed from funds provided by the Public Works Administration Appropriation Act of 1938.

[4] Includes 897 employees and pay-roll disbursements of $133,999 for April 1940; 992 employees and pay-roll disbursements of $131,405 for March 1940 on projects financed by the RFC Mortgage Co.

DETAILED REPORTS FOR MARCH 1940

A MONTHLY report on employment and pay rolls is published as a separate pamphlet by the Bureau of Labor Statistics. This gives detailed data regarding employment, pay rolls, working hours, and earnings for the current month for industrial and business establishments and for the various forms of public employment. This pamphlet is distributed free upon request. Its principal contents for the month of March 1940, insofar as industrial and business employment is concerned, are reproduced in this section of the Monthly Labor Review.

Industrial and Business Employment

Monthly reports on employment and pay rolls are available for 90 manufacturing industries; 16 nonmanufacturing industries, including private building construction; and class I steam railroads. The reports for the first 2 of these groups—manufacturing and nonmanufacturing—are based on sample surveys by the Bureau of Labor Statistics. The figures on class I steam railroads are compiled by the Interstate Commerce Commission and are presented in the foregoing summary.

The indexes of factory employment and pay rolls are based on the 3-year average 1923–25 as 100 and are adjusted to 1937 census data. They relate to wage earners only and are computed from reports supplied by representative manufacturing establishments in 90 manufacturing industries. These reports cover more than 55 percent of the total wage earners in all manufacturing industries of the country and more than 65 percent of the wage earners in the 90 industries included in the monthly survey of the Bureau of Labor Statistics.

The indexes for the nonmanufacturing industries are based on the 12-month average for 1929 as 100. Figures for mining, laundries, and dyeing and cleaning cover wage earners only, but the figures for public utilities, trade, and hotels relate to all employees except corporation officers, executives, and other employees whose duties are mainly supervisory. For crude-petroleum production they cover wage earners and the clerical field force. The coverage of the reporting samples for the various nonmanufacturing industries ranges from approximately 25 percent for wholesale and retail trade, dyeing and cleaning, and insurance to approximately 80 percent for quarrying and nonmetallic mining, anthracite mining, and public utilities.

The indexes for retail trade have been adjusted to conform in general with the 1935 census of retail distribution and to allow for weighting by lines of trade. For the public utilities they have been adjusted to the 1937 census of electrical industries, for wholesale trade to the 1933 census, and for coal mining, year-round hotels, laundries, and dyeing and cleaning to the 1935 censuses.

Data for both manufacturing and nonmanufacturing industries are based on reports of the number of employees and amount of pay rolls for the pay period ending nearest the 15th of the month.

The average weekly earnings shown in tables 4 and 5 are computed by dividing the total weekly pay rolls in the reporting establishments by the total number of full- and part-time employees reported. As not all reporting establishments supply man-hours, average hours worked per week and average hourly earnings are necessarily based on data furnished by a smaller number of reporting firms. The size and composition of the reporting sample vary slightly from month to month. Therefore, the average hours per week, average hourly earnings, and average weekly earnings shown may not be strictly comparable from month to month. The sample, however, is believed to be sufficiently adequate in virtually all instances to indicate the general movements of earnings and hours over the period shown. The changes from the preceding month, expressed as percentages, are based on identical lists of firms for the 2 months, but the changes from March 1939 are computed from chain indexes based on the month-to-month percentage changes.

EMPLOYMENT AND PAY-ROLL INDEXES, AVERAGE HOURS, AND AVERAGE EARNINGS

The indexes of employment and pay rolls as well as average hours worked per week, average hourly earnings, and average weekly earnings in manufacturing and nonmanufacturing industries in March 1940 are shown in table 1. Percentage changes from February 1940 and March 1939 are also given.

The employment and pay-roll indexes, as well as average hours worked per week, average hourly earnings, and average weekly earnings for January, February, and March 1940, where available, are presented in table 2. The January and February figures, where given, may differ in some instances from those previously published because of revisions necessitated primarily by the inclusion of late reports.

In table 3, indexes of employment and pay rolls are given for all manufacturing industries combined for the durable- and non-durable-goods groups of manufacturing industries, and for each of the 13 nonmanufacturing industries, by months, from March 1939 to March 1940, inclusive. The accompanying chart indicates the trend of factory employment and pay rolls from January 1919 to March 1940.

TABLE 1.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, March 1940*

MANUFACTURING

[Indexes are based on 3-year average, 1923–25=100. New series—adjusted to 1937 Census of Manufactures for all industries except automobiles, and not comparable to indexes published in the July 1939 and earlier issues of the pamphlet. Comparable series available upon request]

Industry	Employment			Pay rolls			Average weekly earnings [1]			Average hours worked per week [1]			Average hourly earnings [1]		
	Index March 1940	Percentage change from—		Index March 1940	Percentage change from—		March 1940	Percentage change from—		March 1940	Percentage change from—		March 1940	Percentage change from—	
		February 1940	March 1939		February 1940	March 1939		February 1940	March 1939		February 1940	March 1939		February 1940	March 1939
													Cents		
All manufacturing	**100.6**	**−0.6**	**+6.9**	**98.2**	**+0.4**	**+12.1**	**$25.46**	**+1.0**	**+4.8**	**37.5**	**+0.6**	**+0.4**	**66.5**	**+0.3**	**+3.5**
Durable goods	**96.4**	**−.1**	**+14.6**	**97.5**	**+.8**	**+22.8**	**28.90**	**+.9**	**+7.1**	**38.3**	**+.9**	**+3.8**	**72.8**	**+.3**	**+2.6**
Nondurable goods	**105.0**	**−.9**	**+1.0**	**99.0**	**−.1**	**+2.4**	**21.86**	**+.9**	**+1.4**	**36.9**	**+.4**	**−2.4**	**61.0**	**+.3**	**+3.2**
Durable goods															
Iron and steel and their products, not including machinery	103.4	−3.1	+13.3	96.4	−4.5	+15.3	27.47	−1.5	+1.7	36.1	−.9	+.3	76.3	−.1	+1.6
Blast furnaces, steel works, and rolling mills	111.5	−5.0	+16.7	101.8	−7.6	+16.6	28.88	−2.8	−.2	34.7	−2.2	+.2	83.8	−.1	+.2
Bolts, nuts, washers, and rivets	111.5	−2.4	+14.8	117.3	−6.8	+15.1	25.40	−4.5	−.8	37.2	−4.7	+.8	68.3	+.3	−1.3
Cast-iron pipe	75.1	−.7	+4.4	59.8	−11.5	+1.4	19.32	−10.9	−2.9	31.8	−11.4	−6.1	60.2	+.5	+3.8
Cutlery (not including silver and plated cutlery) and edge tools	102.9	−1.0	+12.5	90.6	+(2)	+11.4	22.92	+1.1	−1.1	38.5	+.4	−1.7	60.6	+.6	+1.0
Forgings, iron and steel	68.4	−4.8	+25.8	77.4	−8.0	+38.2	30.79	−3.4	+9.6	39.7	−2.7	+6.5	77.6	−.8	+3.2
Hardware	98.8	−2.5	+13.0	104.7	+3.8	+23.7	26.15	+6.5	+9.6	38.4	+4.9	+5.0	68.6	+1.5	+4.3
Plumbers' supplies	81.8	−.1	+9.0	70.8	+.1	+12.3	25.18	+.2	+3.1	36.4	−.4	−.2	69.2	+.6	+3.3
Stamped and enameled ware	160.8	−.4	+7.0	163.6	+1.2	+7.2	24.27	+1.6	+.2	37.8	+.8	−1.5	63.2	+.9	+1.7
Steam and hot-water heating apparatus and steam fittings	85.0	+.7	+13.4	75.0	−.8	+24.9	27.04	−1.5	+9.9	38.3	−1.5	+6.3	70.6	+.1	+3.6
Stoves	89.5	+4.1	+7.9	79.6	+6.9	+9.3	25.40	+2.7	+1.3	37.6	+2.4	−.4	67.4	−.2	+.9
Structural and ornamental metalwork	70.3	−1.8	+7.2	59.5	−1.4	+6.5	27.39	+.4	−.6	37.3	−.1	−1.7	73.5	+.5	+1.0
Tin cans and other tinware	93.1	+.4	+3.6	98.4	+5.8	+4.8	24.04	+5.3	+1.1	38.6	+5.0	−1.1	62.1	+.6	+2.7
Tools (not including edge tools, machine tools, files, and saws)	94.6	−1.7	+11.1	92.6	−4.0	+12.8	24.74	−2.3	+1.6	39.8	−2.0	−.8	62.4	−.3	+2.4
Wirework	162.5	+.3	+6.5	179.9	+2.6	+16.8	27.51	+2.3	+9.6	39.1	+1.7	+4.1	70.6	+.7	+5.3
achinery, not ncluding transportation equip-	113.1	0	+19.6	121.4	+1.8	+30.0	30.15	+1.7	+8.7	40.7	+1.4	+6.7	73.9	+.3	+1.5

achinery, not ncluding transportation equipment	113.1	0	+19.6	121.4	+1.8	+30.0	30.15	+1.7	+8.7	40.7	+1.4	+6.7	73.9	+.3	+1.5
Agricultural implements (including tractors)	143.6	+1.7	+10.0	167.9	+2.5	+14.7	31.37	+.8	+4.4	39.5	+.8	+4.7	79.7	+(3)	−.5
Cash registers, adding machines, and calculating machines	128.2	+.2	−2.2	133.9	+2.6	+10.4	33.04	+2.4	+12.9	40.1	+2.4	+11.6	82.4	−(3)	+.7
Electrical machinery, apparatus, and supplies	101.7	+.2	+18.4	113.8	+2.0	+26.3	29.98	+1.8	+6.6	39.8	+1.3	+5.2	75.5	+.5	+1.3
Engines, turbines, water wheels, and windmills	134.5	+1.1	+44.3	173.4	+1.0	+59.1	34.00	−.1	+10.2	42.9	+2.2	+8.5	79.6	−2.2	+1.4
Foundry and machine-shop products	97.2	−.4	+19.1	95.6	+1.5	+28.9	29.47	+1.9	+8.1	40.5	+1.5	+6.6	72.7	+.4	+1.3
Machine tools	211.0	+3.0	+55.4	281.6	+4.0	+93.0	36.99	+1.0	+24.1	48.3	+.9	+19.9	76.7	+.1	+3.8
Radios and phonographs	121.7	−3.6	+11.4	109.5	−3.0	+17.3	22.30	+.5	+5.2	36.4	−.9	−1.0	61.4	+1.4	+6.5
Textile machinery and parts	85.8	−.1	+18.5	81.9	+.5	+21.4	26.23	+.7	+2.3	40.3	+.6	+3.6	65.2	+(3)	−1.1
Typewriters and parts	115.2	−1.9	−10.4	111.4	+1.3	−17.1	23.72	+3.3	−7.5	36.6	+2.9	−6.0	64.7	+.4	−1.6
Transportation equipment	117.0	+1.9	+21.2	124.4	+4.9	+35.7	34.33	+2.9	+11.9	38.4	+2.0	+12.1	90.0	+.7	+.3
Aircraft	2,096.2	+2.7	+114.4	2,010.7	+6.7	+105.1	29.96	+3.9	−4.3	42.1	+2.0	−.1	73.4	+.5	−3.2
Automobiles	114.4	+1.1	+10.2	123.1	+3.4	+26.9	35.49	+2.2	+15.2	37.7	+1.6	+13.2	94.2	+.7	+1.8
Cars, electric- and steam-railroad	61.1	+3.4	+68.2	58.3	+7.4	+91.1	29.92	+3.8	+13.8	39.4	+.8	+12.0	75.9	+3.0	+1.6
Locomotives	28.4	−1.8	+78.5	26.0	−4.5	+88.4	28.15	−2.7	+5.6	36.3	−2.8	+5.7	77.4	+.1	−.2
Shipbuilding	150.7	+5.6	+34.1	169.3	+12.9	+42.5	33.68	+6.9	+6.2	39.0	+5.2	+3.1	86.0	+.4	+2.8
Nonferrous metals and their products	107.1	0	+14.2	104.8	+1.4	+21.6	26.96	+1.5	+6.5	38.9	+1.4	+1.7	69.7	+.2	+4.5
Aluminum manufactures	171.3	+.1	+19.9	196.3	+.8	+26.2	27.91	+.7	+5.3	39.6	+.5	+.5	70.5	+.5	+4.6
Brass, bronze, and copper products	128.7	+.3	+22.8	137.2	+.6	+33.6	29.01	+.3	+8.9	39.0	−.2	+3.0	74.8	+.6	+6.0
Clocks and watches and time-recording devices	90.9	−.3	+8.8	94.8	+.4	+15.8	23.14	+.7	+6.4	38.8	+1.0	+2.9	59.6	−.4	+2.9
Jewelry	92.3	+1.5	+3.4	75.2	+8.8	+2.5	22.84	+7.2	−.8	38.2	+7.8	−2.4	59.0	−.8	+1.9
Lighting equipment	86.0	−2.3	+5.2	74.2	+4.8	+15.3	27.55	+7.2	+9.7	38.5	+5.7	+6.0	71.5	+1.5	+4.1
Silverware and plated ware	70.2	−.8	+1.7	60.3	+1.6	−5.1	24.90	+2.4	−6.9	38.7	+1.6	−6.2	64.1	+.5	−1.1
Smelting and refining—copper, lead, and zinc	86.7	−.3	+12.6	84.8	−1.2	+17.7	27.44	−.9	+4.5	38.8	−.2	+2.4	70.7	−.8	+2.1
Lumber and allied products	66.8	+0.1	+7.6	61.0	+1.7	+13.8	19.91	+1.4	+5.8	38.4	+1.1	−0.5	51.5	+.3	+4.7
Furniture	88.7	−.4	+6.3	77.7	+1.2	+11.4	21.15	+1.6	+4.9	39.2	+.7	+1.3	54.7	+1.1	+2.9
Lumber:															
Millwork	60.7	−(3)	+9.1	47.1	+.4	+10.3	21.59	+.4	+1.2	39.9	+.6	−(3)	54.3	−.4	+.7
Sawmills	59.5	+.7	+8.2	53.3	+2.5	+16.8	18.49	+1.6	+5.2	37.6	+1.6	−1.6	49.2	+.1	+6.8
Stone, clay, and glass products	77.7	+2.9	+3.5	68.3	+4.6	+4.3	24.03	+1.6	+.8	35.7	+1.1	−1.4	66.4	+.3	+2.4
Brick, tile, and terra cotta	54.4	+2.9	+1.9	41.5	+4.8	+2.8	19.55	+1.8	+.9	35.0	+1.6	−3.0	55.3	−.2	+2.8
Cement	59.4	+7.2	−2.0	54.1	+12.5	−.7	25.81	+4.9	+1.4	36.7	+5.1	−.2	70.3	−.2	+1.7
Glass	106.2	+3.6	+10.1	112.8	+4.1	+12.8	26.02	+.6	+2.4	35.2	+.2	−.3	74.1	+.4	+2.9
Marble, granite, slate, and other products	43.0	+.9	−15.0	29.6	+1.7	−20.8	24.14	+.7	−6.5	34.2	+.7	−4.7	69.9	−.8	−2.5
Pottery	93.1	+.2	+6.7	85.3	+1.2	+5.7	23.26	+1.0	−.9	37.6	+.3	−.2	63.7	+1.2	+.6
Nondurable] oods															
Textiles and their products*	102.9	−2.5	−1.8	89.4	−2.1	−2.1	17.45	+.5	−.2	35.1	+.2	−3.8	50.5	+.1	+3.4
Fabrics*	90.6	−5.1	−2.7	78.4	−6.9	−2.6	16.62	−1.9	0	35.1	−1.6	−4.8	48.2	−.1	+5.1
Carpets and rugs	80.1	−2.6	+1.7	67.4	−4.5	+.8	23.30	−1.9	−.9	35.2	−2.3	−5.9	66.3	+.4	+5.2
Cotton goods	92.1	−3.6	+5.0	82.8	−5.3	+9.2	14.59	−1.8	+4.0	35.6	−1.8	−3.4	41.0	+.2	+7.7
Cotton small wares	81.1	−4.3	−3.6	75.5	+.4	−5.1	18.17	+5.0	−1.6	38.0	+4.4	−4.0	48.8	+.2	+3.3
Dyeing and finishing textiles	128.1	−1.5	+.6	108.7	−.5	−1.8	20.62	+1.1	−2.5	37.5	+.9	−5.0	54.6	+.4	+2.7
Hats, fur-felt	86.5	−5.5	−2.7	68.6	−18.8	−2.2	21.50	−14.1	+.4	29.3	−16.1	−1.9	71.4	−1.5	+4.0

See footnotes at end of table.

TABLE 1.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, March 1940*—Continued

MANUFACTURING—Continued

Industry	Employment			Pay rolls			Average weekly earnings [1]			Average hours worked per week [1]			Average hourly earnings [1]		
	Index March 1940	Percentage change from—		Index March 1940	Percentage change from—		March 1940	Percentage change from—		March 1940	Percentage change from—		March 1940	Percentage change from—	
		February 1940	March 1939		February 1940	March 1939		February 1940	March 1939		February 1940	March 1939		February 1940	March 1939
Nondurable goods—Continued															
Textiles and their products—Continued.													*Cents*		
Fabrics—Continued.															
Hosiery	139.9	−3.7	−10.2	144.6	−4.1	−14.7	$18.42	−0.4	−5.0	33.9	+0.1	−8.2	55.0	−0.1	+4.8
Knitted outerwear	65.3	−3.7	−7.3	53.0	−6.4	−4.6	17.28	−2.9	+2.9	35.7	−2.7	−2.9	47.7	+.2	+5.6
Knitted underwear	78.6	+2.1	+9.1	71.7	+4.1	+11.9	15.37	+1.9	+2.5	36.6	+1.3	+.1	42.3	+.6	+3.1
Knitted cloth	133.8	−.4	−1.7	106.6	−.4	−1.6	18.07	+.1	−.1	36.4	−.7	−4.5	48.4	+.6	+2.7
Silk and rayon goods*	66.2	−4.0	−13.6	52.2	−3.6	−11.1	16.25	+.4	+3.1	35.5	−.3	−5.3	45.4	+.7	+8.1
Woolen and worsted goods	71.4	−15.9	−12.2	57.2	−20.1	−13.1	18.42	−5.1	−.8	32.6	−5.4	−7.4	56.7	+.4	+7.1
Wearing apparel	126.5	+2.3	−.4	105.6	+5.9	−1.1	19.54	+3.6	−.7	35.2	+3.6	−2.0	54.3	−.1	+.8
Clothing, men's	111.9	+1.5	+2.4	88.3	+2.8	−.6	20.43	+1.2	−3.0	34.3	+.9	−3.7	58.8	+.1	+.7
Clothing, women's	181.1	+2.7	−2.4	141.2	+5.3	−4.3	20.83	+2.5	−1.9	35.1	+5.4	−1.7	54.7	−1.4	+1.0
Corsets and allied garments	115.8	+.3	+5.5	119.0	+.8	+1.9	17.06	+.5	−3.2	35.8	+.3	−9.3	46.9	−.5	+4.3
Men's furnishings	124.5	+3.0	−8.7	116.3	+3.2	−3.2	14.46	+.2	+6.1	35.1	+3.4	−2.2	39.8	−3.7	+5.9
Millinery	96.8	+8.1	−.9	103.2	+33.7	+3.5	30.59	+23.6	+4.3	39.5	+12.0	+.2	70.9	+6.9	+1.1
Shirts and collars	125.8	+.6	+1.0	113.0	+4.3	+8.9	14.34	+3.7	+7.9	36.0	+2.7	+1.2	40.3	+.4	+6.0
Leather and its manufactures	98.2	−1.1	−5.5	80.3	−2.8	−10.2	19.23	−1.7	−4.9	35.6	−3.1	−7.9	54.1	+.6	+3.3
Boots and shoes	97.7	−.6	−5.8	78.2	−2.5	−11.5	18.20	−2.0	−6.1	35.2	−3.6	−8.8	51.9	+.9	+3.7
Leather	84.0	−2.9	−3.8	80.4	−3.5	−5.7	23.83	−.6	−2.1	37.3	−.5	−4.2	63.8	−.1	+2.1
Food and kindred products	118.7	0	+2.9	117.2	+1.5	+4.8	25.25	+1.4	+1.9	39.8	+1.1	−1.0	64.1	+.4	+1.9
Baking	143.1	+.5	+.2	134.4	+1.5	+2.3	26.12	+1.0	+2.2	41.6	+1.1	−.2	63.0	−.1	+2.6
Beverages	261.4	+2.8	+2.1	299.9	+5.6	+6.0	33.69	+2.8	+3.8	38.5	+2.3	+2.3	88.0	+.4	+1.4
Butter	90.0	+1.5	+1.7	77.5	+2.4	+3.8	22.86	+.8	+2.1	46.6	+1.6	+1.9	48.9	−1.0	−.1
Canning and preserving	87.3	−3.7	−5.0	76.0	−2.4	−5.1	17.10	+1.4	+.1	34.8	+1.6	−5.0	49.5	−.3	+.2
Confectionery	81.9	−2.5	+1.0	77.4	−3.9	+2.2	18.47	−1.5	+1.3	36.8	−2.2	−.2	50.2	+.3	+1.6
Flour	79.5	+.3	+2.5	75.9	+2.9	+5.9	25.80	+2.6	+3.3	40.8	−.9	−1.8	63.2	+3.8	+5.0
Ice cream	70.3	+5.0	+3.0	59.8	+5.0	+4.0	29.78	0	+1.1	45.4	+.8	−3.2	64.8	−.4	+4.0
Slaughtering and meat packing	107.4	−1.1	+14.3	111.5	+.5	+14.0	27.26	+1.6	−.1	40.0	+1.4	+.3	68.1	+.2	−.7
Sugar, beet	39.6	+4.5	−5.3	45.3	+2.2	−4.1	29.74	−2.2	+1.4	39.8	+.9	−2.5	77.3	−.5	+2.1
Sugar refining, cane	95.7	+4.0	+.3	78.9	+3.0	−11.3	23.18	−1.0	−11.6	36.6	+1.2	−10.5	63.4	−2.2	−1.2
	63.6	+3.1	+4.4	58.0	+7.4	+8.8	16.88	+4.2	+4.2	34.5	+5.3	+1.2	49.0	−.5	+3.3
	67.2	−3.1	+1.9	57.2	+4.1	+4.7	17.97	−.4	+4.7	34.3	−.6	+1.1	52.3	+.2	+3.5
	64.1	+1.1	+2.8	57.2	+3.1	+4.7	17.87	+.7	+4.7	34.5	+.3	+1.2	48.6	−.5	+3.5

Sugar, beet	39.6	+4.5	−5.3	45.3	+2.2	−4.1	29.74	−2.2	+1.4	39.8	+.9	−2.5	77.3	−.5	+2.1
Sugar refining, cane	95.7	+4.0	+.3	78.9	+3.0	−11.3	23.18	−1.0	−11.6	36.6	+1.2	−10.5	63.4	−2.2	−1.2
Tobacco manufactures	**63.6**	**+3.1**	**+4.4**	**58.0**	**+7.4**	**+8.8**	**16.88**	**+4.2**	**+4.2**	**34.5**	**+5.3**	**+1.2**	**49.0**	**−.5**	**+3.3**
Chewing and smoking tobacco and snuff	60.5	−2.6	−2.8	67.2	−3.1	+1.9	17.97	−.4	+4.7	34.3	−.6	+1.1	52.3	+.2	+3.5
Cigars and cigarettes	63.9	+3.9	+5.5	56.8	+9.2	+10.0	16.66	+5.1	+4.0	34.5	+6.1	+1.2	48.6	−.5	+3.5
Paper and printing	**114.4**	**−.2**	**+3.0**	**110.0**	**+1.3**	**+4.4**	**28.67**	**+1.5**	**+1.4**	**38.0**	**+.6**	**−.5**	**78.9**	**+.8**	**+1.9**
Boxes, paper	114.2	−.5	+3.4	121.6	+1.9	+1.9	21.16	+2.4	−1.6	38.1	+2.3	−3.1	55.8	+.2	+1.6
Paper and pulp	112.6	−.4	+6.2	115.1	−1.5	+9.0	25.17	−1.1	+2.5	39.5	−.8	−.9	63.7	−.3	+3.5
Printing and publishing:															
Book and job	99.8	−1.4	+.5	88.2	+1.4	+1.7	30.85	+2.9	+1.1	38.4	+1.2	+.5	81.7	+1.8	+1.0
Newspapers and periodicals	117.0	+1.4	+2.2	110.9	+3.2	+3.9	38.19	+1.8	+1.5	36.0	+.8	+.2	102.3	+.5	+2.4
Chemical, petroleum, and coal products	**122.6**	**+1.4**	**+5.7**	**132.5**	**+.8**	**+9.9**	**29.14**	**−.6**	**+3.9**	**38.4**	**+.4**	**−.1**	**74.6**	**−1.3**	**+3.9**
Petroleum refining	121.3	+.3	+3.3	135.8	+1.1	+3.2	34.96	+.8	−.1	36.2	+1.0	−.6	97.1	−.2	+.4
Other than petroleum refining	122.9	+1.7	+6.2	131.5	+.8	+12.1	26.86	−.8	+5.5	39.2	+.2	+(3)	67.0	−1.6	+6.0
Chemicals	135.6	−.4	+14.4	159.3	−.3	+19.5	31.82	+.1	+4.5	39.7	+.3	+.1	80.0	−.2	+4.3
Cottonseed—oil, cake, and meal	86.5	−9.1	−14.6	80.3	−9.5	−1.6	15.12	−.6	+15.1	42.1	−1.5	−2.0	33.6	+.5	+15.8
Druggists' preparations	118.7	−.6	+8.5	131.2	+.7	+10.4	25.09	+1.3	+1.6	40.0	+1.5	+1.8	60.3	+.2	+1.8
Explosives	107.8	+2.2	+27.0	128.8	+1.1	+34.3	32.80	−1.1	+5.7	39.1	−.8	+1.5	83.9	−.3	+4.2
Fertilizers	151.8	+38.8	+4.2	112.7	+34.6	+8.0	13.52	−3.2	+2.4	35.3	+3.0	−5.2	38.4	−6.0	+9.9
Paints and varnishes	123.5	+.2	+3.2	130.5	+1.7	+6.3	28.93	+1.5	+2.1	40.4	+1.9	−.7	71.8	−.5	+2.6
Rayon and allied products	309.0	−1.4	+1.7	316.0	−1.7	+10.2	26.26	−.3	+8.3	39.1	+(3)	+4.1	67.2	−.3	+4.1
Soap	82.7	−2.0	+2.7	99.5	−.8	+3.4	28.08	+1.0	+.6	39.2	+.2	−1.3	71.7	+.8	+1.6
Rubber products	**87.3**	**−.8**	**+5.4**	**88.4**	**+.1**	**+6.3**	**27.66**	**+1.0**	**+.8**	**35.9**	**+1.5**	**−1.1**	**78.0**	**+.3**	**+2.6**
Rubber boots and shoes	56.3	−1.0	−6.8	55.6	+5.4	−2.3	22.70	+6.5	+4.9	37.6	+5.4	+4.4	60.3	+.6	−.1
Rubber tires and inner tubes	72.3	−1.0	+8.4	79.3	−1.6	+6.9	32.04	−.6	−1.3	33.6	−.2	−1.2	96.5	+.1	+1.0
Rubber goods, other	144.2	−.7	+6.1	137.5	+1.7	+7.6	23.22	+2.5	+1.4	38.0	+2.2	−2.2	61.8	+.6	+4.3

NONMANUFACTURING

[Indexes are based on 12-month average, 1929=100]

													Cents		
Coal mining:															
Anthracite [3]	52.5	+0.9	+1.5	38.9	+18.4	+13.8	$24.38	+17.4	+12.0	27.2	+22.4	+16.0	91.3	−0.4	−1.2
Bituminous [3]	89.8	−2.1	+2.7	78.6	−9.6	+1.1	23.74	−7.7	−1.6	26.6	−8.8	−1.7	88.7	+1.1	+.1
Metalliferous mining	66.2	−.1	+8.6	63.0	−1.9	+17.4	29.79	−1.9	+8.1	41.0	−.7	+3.1	73.0	−1.3	+5.0
Quarrying and nonmetallic mining	40.8	+6.7	+1.9	33.9	+10.1	+2.4	20.65	+3.2	+.5	37.0	+4.0	−1.5	55.8	−.7	+2.0
Crude-petroleum production	63.0	−.1	−4.9	58.6	−.8	−4.5	34.28	−.7	+.4	37.9	−.8	−2.2	88.8	+.5	+2.3
Public utilities:															
Telephone and telegraph [4 5]	75.8	−.1	+1.9	98.3	+1.5	+4.7	31.84	+1.6	+2.8	39.4	+1.0	−.3	81.3	+.6	+1.8
Electric light and power [4 5]	89.4	+.3	+2.8	102.5	+.2	+4.4	34.71	−.1	+1.6	40.3	+1.1	+1.3	86.1	−.8	−.5
Street railways and busses [4 5 6]	68.1	−.9	−1.2	69.6	−2.7	+.3	33.70	−1.9	+1.5	46.7	−.6	+1.8	71.7	−.3	+.9

See footnotes at end of table.

TABLE 1.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, March 1940*—Continued

NONMANUFACTURING—Continued

Industry	Employment			Pay rolls			Average weekly earnings [1]			Average hours worked per week [1]			Average hourly earnings [1]		
	Index March 1940	Percentage change from—		Index March 1940	Percentage change from—		March 1940	Percentage change from—		March 1940	Percentage change from—		March 1940	Percentage change from—	
		February 1940	March 1939		February 1940	March 1939		February 1940	March 1939		February 1940	March 1939		February 1940	March 1939
Trade:													*Cents*		
Wholesale [6 7]	90.4	+0.1	+3.3	77.9	+1.0	+4.2	$29.92	+0.8	+0.9	42.4	+3.6	+0.8	70.3	−3.1	−0.5
Retail [6 8]	90.7	+4.1	+4.4	81.9	+3.3	+5.4	21.14	−.8	+1.0	42.5	−1.0	(9)	54.0	−.6	(9)
Food [8]	104.0	+.7	+3.4	94.6	+.3	+3.8	23.51	−.3	+.4	43.2	−(9)	(9)	52.4	−.2	(9)
General merchandising [6 8]	95.3	+8.3	+7.0	85.5	+5.8	+6.5	17.72	−2.3	−.4	38.4	−1.2	(9)	45.9	−1.1	(9)
Apparel [8]	90.5	+19.6	+9.2	78.1	+12.7	+6.3	20.36	−5.7	−2.7	36.8	−5.2	(9)	53.9	−2.0	(9)
Furniture [8]	76.6	+.4	+.9	66.6	+1.2	+2.8	28.18	+.8	+1.8	44.2	+.4	(9)	66.9	−.7	(9)
Automotive [8]	82.3	+1.1	+5.2	77.6	+4.4	+10.2	28.06	+3.3	+4.8	47.5	+.4	(9)	58.4	+2.5	(9)
Lumber [8]	70.3	+1.3	+1.7	65.9	+2.2	+4.6	26.24	+.9	+2.7	42.4	+1.2	(9)	63.1	−.2	(9)
Hotels (year-round) [8 9]	91.9	−.3	−.9	82.3	−.5	+1.5	15.51	−.3	+2.4	46.9	+.9	+1.8	32.8	−1.2	+1.1
Laundries [8]	96.2	+.4	+3.5	84.2	+1.2	+6.1	17.88	+.8	+2.5	43.2	+.3	+.5	41.5	+.6	+2.2
Dyeing and cleaning [8]	99.4	+6.1	+4.2	72.5	+12.6	+7.2	20.00	+6.2	+2.9	42.3	+4.8	+.1	49.0	+1.1	+2.4
Brokerage [6]	(9)	−1.7	−3.1	(9)	−2.4	−4.7	36.80	−.7	−1.6	(9)	(9)	(9)	(9)	(9)	(9)
Insurance [6]	(9)	+.2	+1.0	(9)	+1.7	+2.5	37.01	+1.6	+1.5	(9)	(9)	(9)	(9)	(9)	(9)
Building construction	(9)	+3.0	−2.0	(9)	+6.3	+1.5	29.89	+3.2	+3.5	30.9	+2.3	+1.3	97.0	+1.0	+2.1

[1] Revised series. Mimeographed sheets giving averages by years, 1932 to 1938, inclusive, and by months, January 1938 to September 1939, inclusive, available on request. Average hours and average hourly earnings are computed from data supplied by a smaller number of establishments than average weekly earnings, as not all reporting firms furnish man-hours. The figures are not strictly comparable from month to month because of changes in the size and composition of the reporting sample.

[2] Less than 1/10 of 1 percent.

[3] Indexes adjusted to 1935 census. Comparable series back to January 1929 presented in January 1938 issue of this publication.

[4] Average weekly earnings, hourly earnings, and hours not strictly comparable with figures published in pamphlets prior to January 1938, as they now exclude corporation officers, executives, and other employees whose duties are mainly supervisory.

[5] Retail-trade indexes adjusted to 1935 census and public-utility indexes to 1937 census. Not comparable to indexes published in pamphlets prior to January 1940 or in Monthly Labor Reviews prior to April 1940. Comparable series for earlier months available upon request.

[6] Covers street railways and trolley and motorbus operations of subsidiary, affiliated and successor companies; formerly "electric-railroad and motorbus operation and maintenance."

[7] Indexes adjusted to 1933 census. Comparable series in November 1934 and subsequent issues of pamphlet.

[8] Not available.

[9] Cash payments only; value of board, room, and tips not included.

[9] Revised series of employment and pay-roll indexes. Figures for earlier months available on request.

TABLE 2.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries*

TABLE 2.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries*

MANUFACTURING

[Indexes are based on 3-year average, 1923-25=100, and are adjusted to 1937 Census of Manufactures for all industries except automobiles. Not comparable to indexes published in pamphlets prior to August 1939. Comparable series available upon request]

Industry	Employment index			Pay-roll index			Average weekly earnings [1]			Average hours worked per week [1]			Average hourly earnings [1]		
	March 1940	February 1940	January 1940	March 1940	February 1940	January 1940	March 1940	February 1940	January 1940	March 1940	February 1940	January 1940	March 1940	February 1940	January 1940
													Cents	*Cents*	*Cents*
All manufacturing	100.8	101.4	101.4	98.2	97.8	98.3	$25.46	$25.20	$25.51	37.5	37.3	37.4	66.5	66.3	66.3
Durable goods	96.4	96.5	97.4	97.5	96.7	98.2	28.90	28.60	28.96	38.3	37.9	38.1	72.8	72.6	72.7
Nondurable goods	105.0	106.0	105.3	99.0	99.1	98.4	21.86	21.73	21.87	36.9	36.8	36.9	61.0	60.8	60.7
Durable goods															
Iron and steel and their products, not including machinery	103.4	106.7	108.3	96.4	100.9	106.2	27.47	27.95	29.07	36.1	36.5	37.6	76.3	76.4	76.6
Blast furnaces, steel works, and rolling mills	111.5	117.4	120.9	101.8	110.2	119.3	28.88	29.69	31.25	34.7	35.4	37.1	83.8	83.8	84.1
Bolts, nuts, washers, and rivets	111.5	114.3	117.2	117.3	125.8	124.4	25.40	26.54	25.61	37.2	39.0	37.4	68.3	68.2	68.4
Cast-iron pipe	75.1	75.6	74.4	59.8	67.6	64.8	19.32	21.68	21.14	31.8	35.9	35.1	60.2	59.9	59.8
Cutlery (not including silver and plated cutlery) and edge tools	102.9	104.0	104.7	90.6	90.6	93.0	22.92	22.74	23.12	38.5	38.3	38.8	60.6	60.5	60.5
Forgings, iron and steel	68.4	71.9	72.3	77.4	84.1	85.8	30.79	31.86	32.27	39.7	40.8	41.3	77.6	78.2	78.2
Hardware	98.8	101.3	103.5	104.7	100.9	108.9	26.15	24.65	26.01	38.4	36.5	38.8	68.6	67.5	67.0
Plumbers' supplies	81.8	81.9	82.2	70.8	70.7	70.8	25.18	25.15	25.02	36.4	36.5	36.8	69.2	69.0	68.0
Stamped and enameled ware	160.8	161.4	158.0	163.6	161.6	160.2	24.27	23.88	24.18	37.8	37.7	37.9	63.2	62.6	63.5
Steam and hot-water heating apparatus and steam fittings	85.0	84.4	83.2	75.0	75.6	73.9	27.04	27.45	27.20	38.3	38.9	38.7	70.6	70.6	70.4
Stoves	89.5	86.0	78.0	79.6	74.5	64.6	25.40	24.71	23.75	37.6	36.8	35.7	67.4	67.4	66.7
Structural and ornamental metalwork	70.3	71.6	73.4	59.5	60.3	62.6	27.39	27.27	27.65	37.3	37.3	37.9	73.5	73.2	73.0
Tin cans and other tinware	93.1	92.7	93.6	98.4	93.0	96.9	24.04	22.82	23.46	38.6	36.8	37.9	62.1	62.0	61.9
Tools (not including edge tools, machine tools, files, and saws)	94.6	96.2	96.1	92.6	96.4	97.5	24.74	25.37	25.71	39.8	40.7	41.3	62.4	62.6	62.6
Wirework	162.5	162.0	171.9	179.9	175.3	188.8	27.51	26.93	27.31	39.1	38.4	39.3	70.6	70.2	69.5
Machinery, not including transportation equipment	113.1	113.1	112.4	121.4	119.3	119.1	30.15	29.67	29.74	40.7	40.1	40.4	73.9	73.7	73.5
Agricultural implements (including tractors)	143.6	141.1	135.2	167.9	163.8	155.8	31.37	31.14	30.91	39.5	39.2	38.9	79.7	79.7	79.6
Cash registers, adding machines, and calculating machines	128.2	127.9	126.4	133.9	130.5	128.6	33.04	32.17	32.11	40.1	39.1	39.1	82.4	82.5	82.5
Electrical machinery, apparatus, and supplies	101.7	101.6	101.7	113.8	111.6	112.4	29.98	29.53	29.67	39.8	39.3	39.7	75.5	75.3	74.9

See footnotes at end of table.

TABLE 2.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries*—Continued

MANUFACTURING—Continued

Industry	Employment index			Pay-roll index			Average weekly earnings			Average hours worked per week			Average hourly earnings		
	March 1940	February 1940	January 1940	March 1940	February 1940	January 1940	March 1940	February 1940	January 1940	March 1940	February 1940	January 1940	March 1940	February 1940	January 1940
Durable goods—Continued															
Machinery—Continued.															
Engines, turbines, water wheels, and windmills	134.5	133.0	125.3	173.4	171.6	161.8	$34.00	$34.09	$34.10	42.9	42.1	42.6	*Cents* 79.6	*Cents* 81.3	*Cents* 80.4
Foundry and machine-shop products	97.2	97.6	97.2	95.6	94.2	95.2	29.47	28.89	29.27	40.5	39.9	40.4	72.7	72.3	72.6
Machine tools	211.0	204.8	196.8	281.6	270.7	258.5	36.99	36.60	36.41	48.3	47.8	47.4	76.7	76.6	76.9
Radios and phonographs	121.7	126.3	136.4	109.5	113.0	121.7	22.30	22.19	22.12	36.4	36.6	36.9	61.4	60.6	59.5
Textile machinery and parts	85.8	85.9	86.2	81.9	81.4	83.5	26.23	25.97	26.65	40.3	39.9	40.6	65.2	65.2	65.8
Typewriters and parts	115.2	117.5	122.6	111.4	110.0	111.3	23.72	22.96	22.27	36.6	35.6	34.9	64.7	64.4	63.7
Transportation equipment	**117.0**	**114.8**	**115.5**	**124.4**	**118.6**	**118.3**	**34.33**	**33.47**	**33.23**	**38.4**	**37.6**	**37.4**	**90.0**	**89.6**	**89.4**
Aircraft	2,096.2	2,041.5	2,029.7	2,010.7	1,884.2	1,900.6	29.96	28.77	29.21	42.1	41.2	41.5	73.4	73.0	74.1
Automobiles	114.4	113.1	115.8	123.1	119.1	119.9	35.49	34.80	34.28	37.7	37.1	36.7	94.2	93.8	93.4
Cars, electric- and steam-railroad	61.1	59.0	52.8	58.3	54.3	47.3	29.92	28.83	28.06	39.4	39.1	38.5	75.9	73.8	72.9
Locomotives	28.4	28.9	28.3	26.0	27.2	27.2	28.15	28.93	29.49	36.3	37.4	37.7	77.4	77.3	78.2
Shipbuilding	150.7	142.7	137.5	169.3	149.9	148.0	33.68	31.53	32.32	39.0	37.1	38.2	86.0	85.7	84.6
Nonferrous metals and their products	**107.1**	**107.1**	**109.8**	**104.8**	**103.4**	**108.7**	**26.96**	**26.65**	**27.37**	**38.9**	**38.4**	**38.2**	**69.7**	**69.6**	**70.1**
Aluminum manufactures	171.3	171.3	170.1	196.3	194.8	192.7	27.91	27.72	27.62	39.6	39.4	39.3	70.5	70.2	69.9
Brass, bronze, and copper products	128.7	128.3	135.7	137.2	136.4	150.3	29.01	28.96	30.28	39.0	39.2	40.5	74.8	74.3	74.9
Clocks and watches and time-recording devices	90.9	91.2	90.6	94.8	94.5	92.9	23.14	22.96	22.75	38.8	38.5	38.4	59.6	59.6	59.2
Jewelry	92.3	91.0	89.0	75.2	69.2	72.7	22.84	21.31	22.89	38.2	35.5	37.7	59.0	59.6	60.2
Lighting equipment	86.0	88.0	92.8	74.2	70.8	74.2	27.55	25.68	25.54	38.5	36.5	36.2	71.5	70.5	70.6
Silverware and plated ware	70.2	70.8	71.7	60.3	59.4	61.3	24.90	24.29	24.74	38.7	38.1	39.1	64.1	63.7	63.3
Smelting and refining—copper, lead, and zinc	86.7	87.0	86.9	84.8	85.9	86.5	27.44	27.75	27.94	38.8	38.8	38.9	70.7	71.5	71.9
Lumber and allied products	**66.8**	**66.7**	**67.3**	**61.0**	**60.0**	**58.8**	**19.91**	**19.69**	**19.10**	**38.4**	**38.0**	**36.9**	**51.5**	**51.3**	**51.2**
Furniture	88.7	89.0	90.3	77.7	76.8	74.6	21.15	20.91	19.95	39.2	39.2	37.4	54.7	53.9	53.8
Lumber:															
Millwork	60.7	60.7	61.5	47.1	47.0	47.0	21.59	21.58	21.27	39.9	39.7	39.3	54.3	54.4	54.2
Sawmills	59.5	59.1	59.5	53.3	52.0	51.1	18.49	18.19	17.73	37.6	37.0	36.1	49.2	49.1	49.1

	77.7	75.5	77.7	68.3	65.3	66.9	24.03	23.71	23.58	35.7	35.3	35.1	66.4	66.2	66.4
							19.55	19.30	19.52	35.0	34.6	34.8	55.3	55.4	55.8
										36.7	35.0	35.5	70.3	70.4	70.4

Stone, clay, and glass products	77.7	75.5	77.7	68.3	65.3	66.9	24.03	23.71	23.58	35.7	35.3	35.1	66.4	66.2	66.4
Brick, tile, and terra cotta	54.4	52.9	57.0	41.5	39.6	43.4	19.55	19.30	19.52	35.0	34.6	34.8	55.3	55.4	55.8
Cement	59.4	55.4	57.7	54.1	48.1	50.5	25.81	24.63	24.96	36.7	35.0	35.5	70.3	70.4	70.4
Glass	106.2	102.5	105.6	112.8	108.3	113.1	26.02	25.89	26.20	35.2	35.2	35.2	74.1	73.8	74.6
Marble, granite, slate, and other products	43.0	42.6	38.8	29.6	29.1	23.9	24.14	23.96	21.54	34.2	34.0	31.4	69.9	70.4	69.0
Pottery	93.1	92.9	92.4	85.3	84.3	80.7	23.26	23.03	22.20	37.6	37.5	37.0	63.7	62.9	62.9
Nondurable goods															
Textiles and their products*	102.9	105.5	103.5	89.4	91.3	87.5	17.45	17.48	17.26	35.1	35.1	34.8	50.5	50.5	49.9
Fabrics*	90.6	95.5	95.9	78.4	84.2	84.8	16.62	16.98	17.07	35.1	35.7	36.0	48.2	48.4	48.1
Carpets and rugs	80.1	82.2	82.3	67.4	70.6	72.3	23.30	23.76	24.31	35.2	36.0	36.8	66.3	66.0	66.2
Cotton goods	92.1	95.5	95.9	82.8	87.4	89.0	14.59	14.92	15.18	35.6	36.2	36.8	41.0	41.1	41.2
Cotton small wares	81.1	84.8	87.5	75.5	75.2	81.4	18.17	17.23	18.05	38.0	36.2	37.9	48.8	48.5	48.4
Dyeing and finishing textiles	128.1	130.1	129.7	108.7	109.2	109.5	20.62	20.46	20.64	37.5	37.3	37.6	54.6	54.3	54.4
Hats, fur-felt	86.5	91.5	90.9	68.6	84.4	84.8	21.50	25.12	25.26	29.3	34.8	35.0	71.4	72.8	73.0
Hosiery	139.9	145.3	143.8	144.6	150.8	146.1	18.42	18.59	18.24	33.9	33.8	33.1	55.0	55.3	55.5
Knitted outerwear	65.3	67.9	59.4	53.0	56.6	47.4	17.28	17.83	17.12	35.7	36.8	35.0	47.7	47.8	48.4
Knitted underwear	78.6	77.0	75.4	71.7	68.9	66.0	15.37	15.11	14.78	36.6	36.1	35.3	42.3	42.1	42.4
Knitted cloth	133.8	134.4	137.3	106.6	107.1	112.1	18.07	18.06	18.51	36.4	36.7	37.6	48.4	48.1	47.9
Silk and rayon goods*	66.2	69.0	72.8	52.2	54.2	56.5	16.25	16.17	16.03	35.5	35.6	35.0	45.4	45.1	45.5
Woolen and worsted goods	71.4	84.9	86.5	57.2	71.7	73.1	18.42	19.47	19.46	32.6	34.4	36.2	56.7	56.6	53.7
Wearing apparel	126.5	123.7	116.1	105.6	99.7	87.5	19.54	18.86	17.85	35.2	34.0	32.5	54.3	54.4	53.4
Clothing, men's	111.9	110.2	105.5	88.3	85.9	80.1	20.43	20.18	19.60	34.3	34.0	33.0	58.8	58.7	59.4
Clothing, women's	181.1	176.3	162.2	141.2	134.1	112.8	20.83	20.32	18.55	35.1	33.4	32.0	54.7	55.5	52.8
Corsets and allied garments	115.8	115.5	115.4	119.0	118.1	112.0	17.06	16.86	16.02	35.8	35.7	33.7	46.9	47.0	46.8
Men's furnishings	124.5	120.9	111.5	116.3	112.6	95.0	14.46	14.43	13.15	35.1	34.0	32.3	39.8	41.4	40.1
Millinery	96.8	89.5	78.7	103.2	77.2	58.5	30.59	24.92	21.47	39.5	35.0	32.3	70.9	66.3	62.6
Shirts and collars	125.8	125.0	119.6	113.0	108.3	98.2	14.34	13.86	13.08	36.0	35.0	32.4	40.3	40.2	41.2
Leather and its manufactures	98.2	99.3	97.4	80.3	82.6	82.3	19.23	19.61	19.89	35.6	36.7	37.2	54.1	53.7	53.4
Boots and shoes	97.7	98.3	95.8	78.2	80.2	79.1	18.20	18.59	18.78	35.2	36.6	37.0	51.9	51.4	50.8
Leather	84.0	86.6	87.4	80.4	83.3	86.1	23.83	23.96	24.55	37.3	37.4	38.3	63.8	63.9	64.2
Food and kindred products	118.7	118.7	119.5	117.2	115.5	117.0	25.25	25.00	25.32	39.8	39.4	39.6	64.1	63.9	64.1
Baking	143.1	142.3	141.4	134.4	132.4	131.1	26.12	25.84	25.84	41.6	41.2	40.9	63.0	63.1	63.5
Beverages	261.4	254.4	254.9	299.9	283.9	278.8	33.69	32.77	32.13	38.5	37.6	36.9	88.0	87.7	87.7
Butter	90.0	88.6	88.8	77.5	75.7	74.6	22.86	22.78	22.47	46.6	45.7	45.1	48.9	49.6	49.8
Canning and preserving	87.3	90.7	91.0	76.0	77.8	80.6	17.10	16.86	17.41	34.8	34.6	35.3	49.5	49.5	50.2
Confectionery	81.9	84.0	82.9	77.4	80.6	80.3	18.47	18.74	18.87	36.8	37.7	37.8	50.2	50.1	50.0
Flour	79.5	79.3	79.0	75.9	73.7	73.4	25.80	25.14	25.18	40.8	41.0	41.2	63.2	60.9	60.8
Ice cream	70.3	66.9	66.4	59.8	57.0	55.9	29.78	29.81	29.50	45.4	45.0	44.3	64.8	65.2	65.5
Slaughtering and meat packing	107.4	108.6	111.8	111.5	110.9	118.9	27.26	26.88	27.94	40.0	39.5	41.2	68.1	68.0	67.7
Sugar, beet	39.6	37.9	69.7	45.3	44.3	62.6	29.74	30.41	23.38	39.8	40.3	33.9	77.3	77.6	68.4
Sugar refining, cane	95.7	92.0	89.7	78.9	76.6	71.4	23.18	23.41	22.41	36.6	36.1	34.2	63.4	64.8	65.6

See footnotes at end of table.

TABLE 2.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries*—Continued

MANUFACTURING—Continued

Industry	Employment index			Pay-roll index			Average weekly earnings			Average hours worked per week			Average hourly earnings		
	March 1940	February 1940	January 1940	March 1940	February 1940	January 1940	March 1940	February 1940	January 1940	March 1940	February 1940	January 1940	March 1940	February 1940	January 1940
Nondurable goods—Continued															
													Cents	*Cents*	*Cents*
Tobacco manufactures	**63.6**	**61.7**	**59.0**	**58.0**	**54.0**	**52.9**	**$16.88**	**$16.25**	**$16.52**	**34.5**	**32.8**	**33.3**	**49.0**	**49.1**	**49.6**
Chewing and smoking tobacco and snuff	60.5	62.1	63.4	67.2	69.3	67.8	17.97	18.05	17.33	34.3	34.6	33.4	52.3	52.2	51.9
Cigars and cigarettes	63.9	61.5	58.4	56.8	52.0	51.0	16.66	15.80	16.35	34.5	32.5	33.3	48.6	48.7	49.3
Paper and printing	**114.4**	**114.6**	**115.1**	**110.0**	**108.6**	**110.0**	**28.67**	**28.37**	**28.66**	**38.0**	**37.8**	**38.1**	**78.9**	**78.3**	**78.3**
Boxes, paper	114.2	114.8	116.6	121.6	119.4	121.6	21.16	20.75	20.85	38.1	37.3	37.6	55.8	55.7	55.7
Paper and pulp	112.6	113.0	114.1	115.1	116.9	117.6	25.17	25.42	25.35	39.5	39.8	40.0	63.7	63.8	63.5
Printing and publishing:															
Book and job	99.8	101.2	102.6	88.2	87.0	91.6	30.85	30.05	31.30	38.4	37.9	38.9	81.7	80.4	81.7
Newspapers and periodicals	117.0	115.4	113.5	110.9	107.5	105.7	38.19	37.59	37.55	36.0	35.9	35.7	102.3	101.8	101.8
Chemical, petroleum, and coal products	**122.6**	**120.9**	**121.0**	**132.5**	**131.4**	**131.0**	**29.14**	**29.31**	**29.22**	**38.4**	**38.4**	**38.4**	**74.6**	**75.6**	**75.6**
Petroleum refining	121.3	120.9	121.6	135.8	134.4	133.5	34.96	34.78	34.42	36.2	35.9	35.5	97.1	97.5	97.4
Other than petroleum refining	122.9	120.9	120.9	131.5	130.4	130.3	26.86	27.24	27.24	39.2	39.2	39.4	67.0	68.1	68.0
Chemicals	135.6	136.1	135.8	159.3	159.7	159.8	31.82	31.79	31.82	39.7	39.6	39.8	80.0	80.3	80.0
Cottonseed—oil, cake, and meal	86.5	95.1	103.2	80.3	88.8	99.3	15.12	15.21	15.29	42.1	42.7	45.0	33.6	33.4	33.2
Druggists' preparations	118.7	119.4	118.5	131.2	130.4	129.2	25.09	24.74	24.76	40.0	39.4	39.6	60.3	60.0	59.0
Explosives	107.8	105.5	103.5	128.8	127.5	120.9	32.80	33.16	32.08	39.1	39.4	38.2	83.9	84.2	83.9
Fertilizers	151.8	109.3	105.1	112.7	83.7	82.5	13.52	13.81	14.27	35.3	34.2	34.0	38.4	40.4	42.0
Paints and varnishes	123.5	123.2	123.5	130.5	128.3	128.5	28.93	28.43	28.44	40.4	39.6	39.7	71.8	71.9	71.8
Rayon and allied products	309.0	313.3	313.5	316.0	321.3	320.4	26.26	26.33	26.24	39.1	39.1	38.8	67.2	67.4	67.6
Soap	82.7	84.4	83.5	99.5	100.3	100.3	28.08	27.81	28.12	39.2	39.1	39.4	71.7	71.1	71.3
Rubber products	**87.3**	**88.0**	**90.0**	**88.4**	**88.3**	**94.1**	**27.66**	**27.40**	**28.54**	**35.9**	**35.3**	**36.6**	**78.0**	**77.7**	**77.6**
Rubber boots and shoes	56.3	56.8	59.1	55.6	52.8	56.4	22.70	21.32	21.92	37.6	35.5	36.0	60.3	60.0	60.8
Rubber tires and inner tubes	72.3	73.0	73.6	79.3	80.6	85.6	32.04	32.29	33.96	33.6	33.7	35.2	96.5	96.4	96.5
Rubber goods, other	144.2	145.3	150.3	137.5	135.2	144.8	23.22	22.69	23.53	38.0	37.2	38.5	61.8	61.6	61.7

NONMANUFACTURING

NONMANUFACTURING

[Indexes are based on 12-month average, 1929=100]

													Cents	*Cents*	*Cents*	
Coal mining:																
Anthracite [3]	52.5	52.0	51.5	38.9	32.9	52.5	$24.38	$20.76	$33.46	27.2	22.2	36.8	91.3	91.6	91.9	
Bituminous [3]	89.8	91.7	91.8	78.6	87.0	87.0	23.74	25.73	25.71	26.6	29.2	29.4	88.7	87.8	87.6	
Metalliferous mining	66.2	66.3	66.4	63.0	64.2	63.6	29.79	30.35	30.05	41.0	41.3	41.0	73.0	73.9	73.7	
Quarrying and nonmetallic mining	40.8	38.3	37.8	33.9	30.8	29.6	20.65	20.02	19.19	37.0	35.6	34.4	55.8	56.2	55.6	
Crude-petroleum production	63.0	63.0	63.2	58.6	59.0	58.4	34.28	34.51	33.98	37.9	38.2	37.9	88.8	88.3	87.8	
Public utilities:																
Telephone and telegraph [3 4]	75.8	75.9	76.1	98.3	96.9	97.4	31.84	31.34	31.46	39.4	39.1	39.2	81.3	80.8	80.8	
Electric light and power [3 4]	89.4	89.2	89.1	102.5	102.2	101.6	34.71	34.93	34.69	40.3	39.9	39.5	86.1	87.4	88.0	
Street railways and busses [3 4 5]	68.1	68.7	68.8	69.6	71.5	69.0	33.70	34.35	33.18	46.7	47.0	45.5	71.7	71.9	72.0	
Trade:																
Wholesale [3 6]	90.4	90.2	90.6	77.9	77.1	77.1	29.92	29.68	29.52	42.4	40.9	40.7	70.3	72.6	72.4	
Retail [3 4]	90.7	87.1	87.7	81.9	79.3	79.9	21.14	21.49	21.51	42.5	42.9	43.0	54.0	54.3	54.3	
Food [4]	104.0	103.3	102.2	94.6	94.3	93.3	23.51	23.60	23.46	43.2	43.2	43.6	52.4	52.5	52.2	
General merchandising [3 4]	95.3	88.0	89.3	85.5	80.8	82.8	17.72	18.11	18.30	38.4	38.9	39.2	45.9	46.3	46.5	
Apparel [4]	90.5	75.7	77.9	78.1	69.3	73.0	20.36	21.57	21.91	36.8	38.9	39.6	53.9	55.0	55.2	
Furniture [4]	76.6	76.3	76.3	66.6	65.8	66.2	28.18	27.96	28.31	44.2	44.0	43.7	66.9	67.4	66.5	
Automotive [4]	82.3	81.4	81.4	77.6	74.3	72.9	28.06	27.15	26.75	47.5	47.4	47.0	58.4	57.0	57.0	
Lumber [4]	70.3	69.4	70.0	65.9	64.5	64.7	26.24	25.94	25.84	42.4	41.9	41.8	63.1	63.2	63.3	
Hotels (year-round) [2 3 7]	91.9	92.1	91.3	82.3	82.7	81.1	15.51	15.55	15.37	46.9	46.4	46.0	32.8	33.2	33.1	
Laundries [3]	96.2	95.8	96.0	84.2	83.1	83.4	17.88	17.74	17.76	43.2	43.0	42.9	41.5	41.3	41.5	
Dyeing and cleaning [3]	99.4	93.7	94.0	72.5	64.4	65.5	20.00	18.83	19.37	42.3	40.4	40.1	49.0	48.5	49.5	
Brokerage [3 8]	−1.7	−1.3	−.5	−2.4	−1.3	−1.8	36.80	37.07	37.06	(9)	(9)	(9)	(9)	(9)	(9)	
Insurance [3 8]	+.2	−.1	+.1	+127	−.2	+.7	37.01	36.44	36.51	(9)	(9)	(9)	(9)	(9)	(9)	
Building construction [6]	+3.0	+.6	−16.7	+6.3	−1.8	−20.1	29.89	28.93	29.74	30.9	30.2	30.8	97.0	96.2	97.0	

[1] Revised series. Mimeographed sheets, giving averages by years, 1932 to 1938, inclusive, and by months, January 1938 to September 1939, inclusive, available on request. Average hours and average hourly earnings are computed from data supplied by a smaller number of establishments than average weekly earnings, as not all reporting firms furnish man-hours. The figures are not strictly comparable from month to month because of changes in the size and composition of the reporting sample.

[2] Indexes adjusted to 1935 census. Comparable series back to January 1929 presented in January 1938 issue of this publication.

[3] Average weekly earnings, hourly earnings, and hours not strictly comparable with figures published in pamphlets prior to January 1938 as they now exclude corporation officers, executives, and other employees whose duties are mainly supervisory.

[4] Retail-trade indexes adjusted to 1935 census and public-utility indexes to 1937 census. Not comparable to indexes published in pamphlets prior to January 1940 or in Monthly Labor Reviews prior to April 1940.

[5] Covers street railways and trolley and motorbus operations of subsidiary, affiliated, and successor companies; formerly "electric-railroad and motorbus operation and maintenance."

[6] Indexes adjusted to 1933 census. Comparable series in November 1934 and subsequent issues of pamphlet.

[7] Cash payments only; additional value of board, room, and tips not included.

[8] Indexes of employment and pay rolls are not available; percentage changes from preceding month substituted.

[9] Not available.

*Revised series of employment and pay-roll indexes. Figures for earlier months available on request.

TABLE 3.—*Indexes of Employment and Pay Rolls in Selected Manufacturing*[1] *and Nonmanufacturing*[2] *Industries, March 1939 to March 1940, Inclusive*

Industry	Employment													
	1939											1940		
	Av.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Manufacturing														
All industries	96.8	94.3	94.1	93.0	93.4	93.5	96.3	100.2	103.6	103.8	104.1	101.4	101.4	100.8
Durable goods [3]	87.8	84.1	84.8	84.0	84.6	83.0	83.9	89.8	96.1	98.2	100.0	97.4	96.5	96.4
Nondurable goods [4]	105.5	104.0	103.0	101.6	101.8	103.5	108.1	110.2	110.8	109.2	108.0	105.3	106.0	105.0
Nonmanufacturing														
Anthracite mining [5]	50.6	51.7	53.0	52.6	51.2	44.7	48.5	49.4	51.9	51.3	51.0	51.5	52.0	52.5
Bituminous-coal mining [5]	78.6	87.4	25.9	47.9	78.3	79.4	81.4	85.4	93.0	94.9	92.6	91.8	91.7	89.8
Metalliferous mining	62.7	61.0	61.5	61.9	61.6	60.4	60.4	62.9	65.3	66.5	67.3	66.4	66.3	66.2
Quarrying and nonmetallic mining	44.6	40.1	43.0	45.6	47.3	47.5	48.1	47.9	48.0	47.1	44.0	37.8	38.3	40.8
Crude-petroleum production	65.8	66.2	65.8	66.1	67.0	67.3	66.7	65.0	64.3	63.8	63.8	63.2	63.0	63.0
Telephone and telegraph [6]	75.8	74.4	75.1	75.8	76.4	76.5	76.6	76.4	76.5	76.1	75.8	76.1	75.9	75.8
Electric light and power [6]	89.0	87.0	87.7	88.2	89.2	90.0	90.6	90.6	90.4	90.3	90.1	89.2	89.2	89.4
Street railways and busses [6 7]	69.0	68.9	68.5	68.9	69.3	69.1	69.2	69.2	69.5	69.3	69.0	68.8	68.7	68.1
Wholesale trade	89.2	87.4	87.3	87.2	88.1	87.9	89.0	90.5	92.4	92.1	92.2	90.6	90.2	90.4
Retail trade [6]	89.8	86.9	88.5	88.8	89.4	87.2	86.3	90.5	91.7	93.3	104.2	87.7	87.1	90.7
Year-round hotels [6]	92.0	92.7	93.2	93.9	92.8	90.3	89.8	91.3	92.9	91.8	90.8	91.3	92.1	91.9
Laundries [6]	95.9	92.9	93.5	95.5	98.7	100.0	99.1	97.8	96.0	95.6	95.6	96.0	95.8	96.2
Dyeing and cleaning [6]	101.3	95.4	102.2	107.0	110.1	106.5	102.7	105.2	105.1	97.8	97.4	94.0	93.7	99.4
	Pay rolls													
Manufacturing														
All industries	90.8	87.6	85.5	85.0	86.5	84.4	89.7	93.8	101.6	101.6	103.7	98.3	97.8	98.2
Durable goods [3]	85.2	79.4	79.5	78.8	80.7	76.0	81.5	87.8	99.6	100.9	104.6	98.2	96.7	97.5
Nondurable goods [4]	97.0	96.7	92.2	91.9	93.0	93.7	99.0	100.5	103.9	102.4	102.8	98.4	99.1	99.0
Nonmanufacturing														
Anthracite mining [5]	39.5	34.2	43.4	57.0	36.1	25.2	33.8	40.1	52.2	42.0	26.6	52.5	32.9	38.9
Bituminous-coal mining [5]	69.9	77.8	17.6	20.4	66.5	64.5	74.6	80.2	97.6	96.3	84.3	87.0	87.0	78.6
Metalliferous mining	56.9	53.6	52.6	54.1	53.8	48.5	53.0	55.1	63.4	63.9	65.0	63.6	64.2	63.0
Quarrying and nonmetallic mining	38.7	33.1	35.9	39.7	41.7	40.9	42.9	42.7	45.6	42.9	39.2	29.6	30.8	33.9
Crude-petroleum production	61.0	61.3	60.8	61.2	62.5	61.9	62.0	60.8	58.8	59.6	59.2	58.4	59.0	58.6
Telephone and telegraph [6]	95.6	93.8	94.0	95.7	95.7	96.6	96.3	96.9	97.2	96.4	97.4	97.4	96.9	98.3
Electric light and power [6]	100.4	98.2	98.3	99.9	101.2	101.1	102.2	102.2	102.0	102.5	102.4	101.6	102.2	102.5
Street railways and busses [6 7]	69.5	69.3	68.4	68.9	70.0	69.4	69.8	69.2	71.2	69.4	69.8	69.0	71.5	69.6
Wholesale trade	76.6	74.7	74.8	74.9	75.8	75.8	76.2	78.0	80.3	79.0	79.1	77.1	77.2	77.9
Retail trade [6]	80.8	77.7	79.6	79.9	81.1	79.5	78.0	80.9	83.2	83.6	91.8	79.9	79.3	81.9
Year-round hotels [6]	81.2	81.1	81.9	82.4	82.0	79.1	79.2	80.4	82.2	81.8	81.1	81.1	82.8	82.3
Laundries [6]	83.1	79.3	79.9	83.9	86.9	88.0	85.9	84.5	83.9	82.9	83.7	83.4	83.1	84.2
Dyeing and cleaning [6]	73.6	67.7	73.3	83.0	84.2	77.1	73.0	78.3	77.3	70.8	69.9	65.5	64.4	72.5

[1] 3-year average 1923–25=100—adjusted to 1937 Census of Manufactures.

[2] 12-month average for 1929=100. Comparable indexes for wholesale trade, quarrying, metal mining, and crude-petroleum production are in November 1934 and subsequent issues of Employment and Pay Rolls or in February 1935 and subsequent issues of Monthly Labor Review. For other nonmanufacturing indexes see notes 5 and 6.

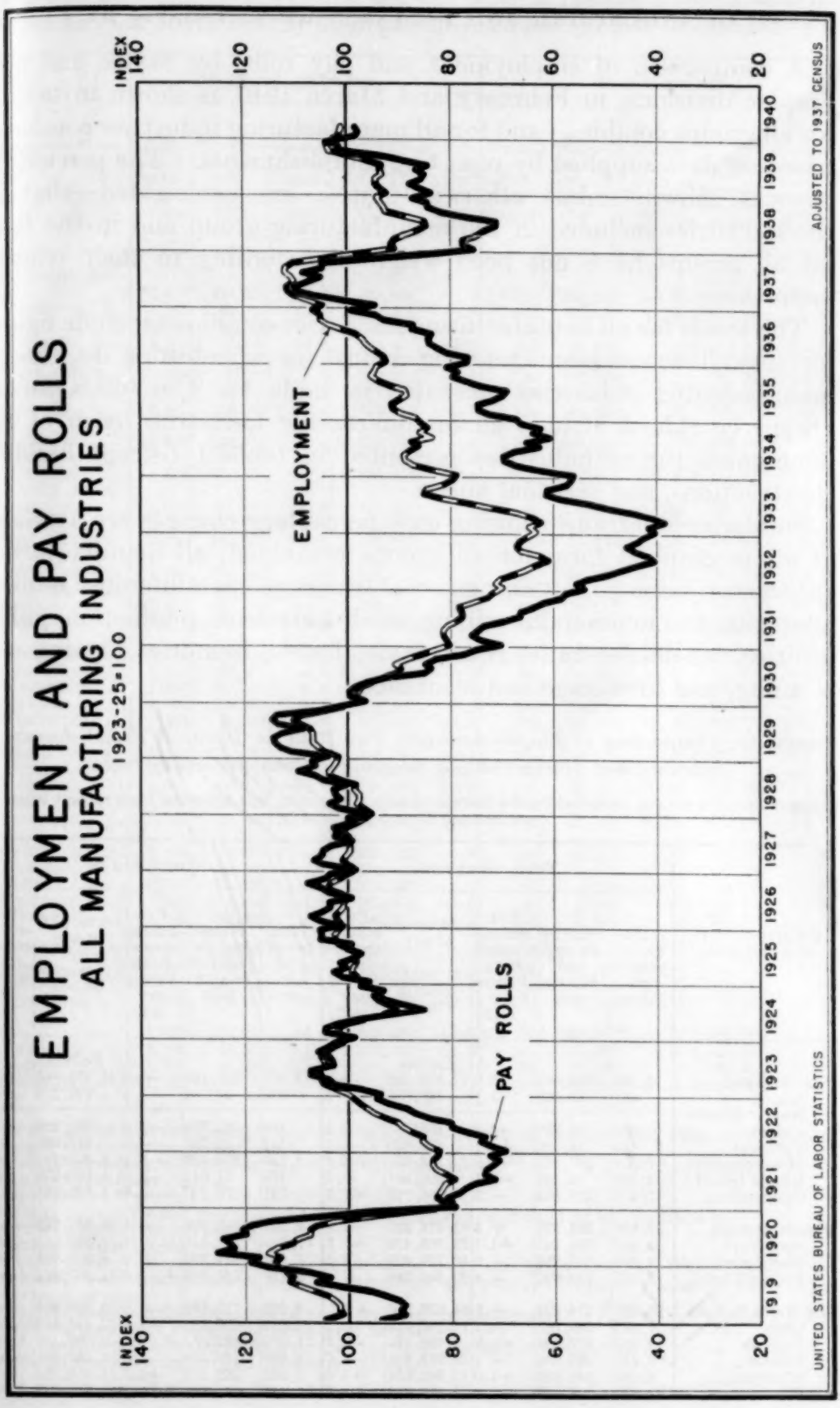
[3] Includes: Iron and steel, machinery, transportation equipment, nonferrous metals, lumber and allied products, and stone, clay, and glass products.

[4] Includes: Textiles and their products, leather and its manufactures, food and kindred products, tobacco manufactures, paper and printing, chemicals and allied products, products of petroleum and coal, rubber products, and a number of miscellaneous industries not included in other groups.

[5] Indexes have been adjusted to the 1935 census. Comparable series from January 1929 forward are presented in January 1938 and subsequent issues of pamphlet.

[6] Retail trade indexes adjusted to 1935 census and public utility indexes to 1937 census. Not comparable with indexes published in pamphlets prior to January 1940 or in Monhly Labor Review prior to April 1940. Comparable series January1929 to December 1939 available in mimeographed form.

[7] Covers street railways and trolley and motorbus operations of subsidiary, affiliated, and successor companies.


EMPLOYMENT AND PAY ROLLS
ALL MANUFACTURING INDUSTRIES
1923-25-100
INDEX
140
120
100
80
60
40
20
EMPLOYMENT
PAY ROLLS
1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940
UNITED STATES BUREAU OF LABOR STATISTICS
ADJUSTED TO 1937 CENSUS

TREND OF INDUSTRIAL AND BUSINESS EMPLOYMENT, BY STATES

A comparison of employment and pay rolls, by States and geographic divisions, in February and March 1940, is shown in table 4 for all groups combined and for all manufacturing industries combined based on data supplied by reporting establishments. The percentage changes shown, unless otherwise noted, are unweighted—that is, the industries included in the manufacturing group and in the total for all groups have not been weighted according to their relative importance.

The totals for all manufacturing industries combined include figures for miscellaneous manufacturing industries in addition to the 90 manufacturing industries presented in table 1. The totals for all groups combined include all manufacturing industries, each of the nonmanufacturing industries presented in table 1 (except building construction), and seasonal hotels.

Similar comparisons showing only percentage changes are available in mimeographed form for all groups combined, all manufacturing, anthracite mining, bituminous-coal mining, metalliferous mining, quarrying and nonmetallic mining, crude-petroleum production, public utilities, wholesale trade, retail trade, hotels, laundries, dyeing and cleaning, and brokerage and insurance.

TABLE 4.—*Comparison of Employment and Pay Rolls in Identical Establishments in February and March 1940, by Geographic Divisions and by States*

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

Geographic division and State	Total—all groups					Manufacturing				
	Number of establishments	Number on pay roll March 1940	Percentage change from February 1940	Amount of pay roll (1 week) March 1940	Percentage change from February 1940	Number of establishments	Number on pay roll March 1940	Percentage change from February 1940	Amount of pay roll (1 week) March 1940	Percentage change from February 1940
				Dollars					*Dollars*	
New England	13,166	896,068	−5.0	21,509,591	−3.5	3,575	617,189	−2.9	14,339,080	−0.8
Maine	861	55,979	−3.5	1,168,850	−5.5	276	45,784	−4.4	922,252	−7.1
New Hampshire	651	40,929	−4.2	858,637	−6.2	209	33,756	−5.2	690,224	−7.5
Vermont	480	18,886	+.1	428,036	−1.1	152	12,195	−.4	275,099	−1.3
Massachusetts	[1] *7,531*	*497,239*	*−7.9*	*11,252,891*	*−6.2*	*1,789*	*272,192*	*−3.4*	*6,251,284*	*−.7*
Rhode Island	1,169	94,433	−3.1	2,096,981	+.6	418	74,042	−5.0	1,590,878	+.6
Connecticut	2,474	218,602	−.3	5,704,196	+1.3	731	179,220	−.6	4,609,343	+1.1
Middle Atlantic	32,826	2,250,925	+.3	61,273,220	+1.6	6,897	1,343,909	−.5	36,261,242	+1.2
New York	19,885	994,345	+1.1	28,105,479	+2.3	[2] *2,810*	*483,846*	*+.7*	*13,590,054*	*+2.8*
New Jersey	4,004	391,888	+.6	10,721,495	+2.5	1,661	314,525	+.4	8,503,974	+2.7
Pennsylvania	8,937	864,692	−.8	22,446,246	+.4	*2,426*	*545,538*	[3] *−1.9*	*14,167,214*	[3] *−1.2*
East North Central	26,028	2,274,274	+.2	64,076,376	+(4)	8,282	1,713,455	−.2	49,835,865	−.1
Ohio	7,685	580,505	+.1	15,927,179	+.2	2,342	429,584	−1.1	12,183,602	−.1
Indiana	*2,928*	*277,895*	*−1.8*	*7,336,120*	*−3.5*	*1,076*	*223,974*	[3] *−2.2*	*6,093,459*	[3] *−3.0*
Illinois	[5] *6,547*	*620,036*	*−.4*	*16,652,331*	*−1.0*	*2,366*	*423,582*	*−.6*	*11,485,291*	*−.8*
Michigan	4,534	546,826	+1.0	17,583,054	+1.6	*1,032*	*462,034*	*+1.5*	*15,358,884*	*+1.2*
Wisconsin	[6] *4,334*	*249,012*	*+2.1*	*6,577,692*	*+2.3*	[7] *1,466*	*174,281*	[3] *+1.4*	*4,714,629*	[3] *+2.2*

See footnotes at end of table.

TABLE 4.—*Comparison of Employment and Pay Rolls in Identical Establishments in February and March 1940, by Geographic Divisions and by States*—Continued

Geographic division and State	Total—all groups					Manufacturing				
	Number of establishments	Number on pay roll March 1940	Percentage change from February 1940	Amount of pay roll (1 week) March 1940	Percentage change from February 1940	Number of establishments	Number on pay roll March 1940	Percentage change from February 1940	Amount of pay roll (1 week) March 1940	Percentage change from February 1940
				Dollars					*Dollars*	
West North Central	**12,807**	**464,905**	**+1.3**	**11,588,997**	**+1.1**	**2,442**	**224,558**	**−0.2**	**5,587,623**	**+0.8**
Minnesota	[8] *2,821*	*129,915*	*+2.2*	*3,479,575*	*+.9*	*635*	*52,159*	*+1.0*	*1,376,959*	*+.3*
Iowa	1,980	66,255	−.5	1,630,097	+.2	354	37,710	−1.7	968,017	+.1
Missouri	3,250	175,246	+1.8	4,265,474	+2.6	798	98,359	+.3	2,322,922	+2.3
North Dakota	495	4,444	−.1	107,333	−.3	27	409	+1.0	10,712	+2.8
South Dakota	480	8,255	+.4	219,533	−1.2	30	2,670	−1.3	65,243	−6.0
Nebraska	1,320	26,997	+.2	617,341	−.5	137	8,865	−1.9	222,177	−2.4
Kansas	[9] *2,461*	*53,793*	[10] *+2.4*	*1,269,644*	[8] *+.8*	*461*	*24,386*	*−1.2*	*621,593*	*−.4*
South Atlantic	**11,058**	**929,718**	**+(4)**	**18,656,886**	**−.6**	**2,950**	**632,005**	**−.7**	**11,806,245**	**−.4**
Delaware	240	15,549	+1.9	396,047	+2.5	77	*11,430*	*+.9*	*285,571*	*+2.5*
Maryland	*1,572*	*151,356*	*+1.5*	*3,822,152*	*+2.4*	*646*	*108,844*	[3] *+1.1*	*2,757,248*	[3] *+2.0*
District of Columbia	1,052	41,187	+2.0	1,121,233	+1.7	43	3,414	+.5	119,895	+3.0
Virginia	2,001	125,765	+.6	2,456,774	−.8	464	86,712	−.2	1,670,642	−.8
West Virginia	1,259	143,300	−.3	3,589,067	−2.7	209	54,086	−.6	1,372,068	+.4
North Carolina	1,570	174,662	−1.3	2,764,720	−1.7	646	158,213	−1.8	2,484,298	−2.1
South Carolina	831	90,934	−.8	1,369,621	−1.4	270	82,433	−1.1	1,213,742	−1.7
Georgia	1,497	129,573	−.2	2,087,260	−2.2	400	101,125	−.9	1,485,669	−3.2
Florida	1,036	57,392	−.2	1,050,012	+.8	195	25,748	−.5	417,112	+.2
East South Central	**4,938**	**322,098**	**+.3**	**5,963,913**	**−2.9**	**1,039**	**198,579**	**−.6**	**3,489,959**	**−1.2**
Kentucky	1,531	87,200	−.5	1,792,944	−6.5	286	34,202	−.3	715,180	+2.7
Tennessee	1,410	107,197	+.8	1,927,624	−(4)	364	78,216	−.2	1,386,145	−.4
Alabama	1,405	103,863	+.3	1,864,962	−3.0	289	70,207	−1.0	1,158,860	−4.4
Mississippi	592	23,838	+.6	378,383	+1.8	100	15,954	−1.4	229,774	−.4
West South Central	**5,340**	**217,897**	**+1.2**	**4,828,206**	**+1.5**	**1,284**	**112,277**	**+.3**	**2,437,807**	**+2.4**
Arkansas	[11] *915*	*28,122*	*+.4*	*479,641*	*+2.6*	*264*	*18,555*	*−1.6*	*311,541*	*+3.9*
Louisiana	1,060	56,709	+2.8	1,138,656	+3.0	232	30,601	+3.4	573,180	+5.2
Oklahoma	1,410	41,061	+.5	997,909	−1.0	142	11,967	−1.2	277,893	−1.2
Texas	*1,955*	*92,005*	*+.8*	*2,212,000*	*+1.7*	*646*	*51,154*	[3] *+.6*	*1,275,193*	[3] *+2.5*
Mountain	**4,126**	**124,372**	**+.5**	**3,263,153**	**−1.6**	**553**	**32,601**	**+.3**	**848,217**	**−.3**
Montana	645	19,369	+1.7	554,345	−1.5	69	4,416	+1.8	116,384	−1.3
Idaho	516	9,227	+.8	235,542	+1.1	60	2,252	+2.2	58,090	+.9
Wyoming	337	7,845	−1.0	215,544	−7.9	35	1,059	−1.9	36,576	−1.4
Colorado	1,176	40,586	−.2	1,029,377	−1.9	198	15,034	−.8	399,226	+.1
New Mexico	287	6,080	+.6	130,035	−2.6	29	817	−2.7	16,596	−2.5
Arizona	406	17,215	+.7	480,537	−1.5	36	2,724	+1.5	*67,758*	*+.9*
Utah	591	21,395	+.4	528,368	−1.6	113	6,035	+1.2	145,474	−1.0
Nevada	168	2,655	+4.0	89,405	+11.4	13	264	+3.1	8,113	+6.4
Pacific	**11,083**	**498,891**	**+1.2**	**14,503,238**	**+1.9**	**2,749**	**261,941**	**+1.4**	**7,503,752**	**+2.5**
Washington	2,690	94,505	+1.0	2,657,793	+1.9	541	53,368	+.3	1,523,441	+1.6
Oregon	1,265	46,232	+3.0	1,220,323	+2.5	286	26,360	+4.4	682,645	+3.1
California	[12] *7,128*	*358,154*	*+1.0*	*10,625,122*	*+1.8*	*1,922*	*182,213*	*+1.3*	*5,297,666*	*+2.7*

[1] Includes banks and trust companies; construction, municipal, agricultural, and office employment; amusement and recreation; professional services; and trucking and handling.
[2] Includes laundering and cleaning; and water, light, and power.
[3] Weighted percentage change.
[4] Less than 1/10 of 1 percent.
[5] Includes automobile and miscellaneous services; restaurants; and building and contracting.
[6] Includes construction but not public works.
[7] Does not include logging.
[8] Includes banks; real estate; pipe-line transportation; motor transportation (other than operation and maintenance); water transportation; hospitals and clinics; and personal, business, mechanical repair, and miscellaneous services.
[9] Includes financial institutions, miscellaneous services, and restaurants.
[10] Weighted percentage change, including hired farm labor.
[11] Includes automobile dealers and garages; and sand, gravel, and building stone.
[12] Includes banks, insurance, and office employment.

INDUSTRIAL AND BUSINESS EMPLOYMENT IN PRINCIPAL METROPOLITAN AREAS

A comparison of employment and pay rolls in February and March 1940 is made in table 5 for 13 metropolitan areas, each of which had a population of 100,000 or over in 1930. Cities within these areas but having a population of 100,000 or over, are not included. Footnotes to the table specify which cities are excluded. Data concerning them have been prepared in a supplementary tabulation which is available on request. The figures represent reports from cooperating establishments and cover both full- and part-time workers in the manufacturing and nonmanufacturing industries presented in table 1, with the exception of building construction, and include also miscellaneous industries.

Revisions made in the figures after they have gone to press, chiefly because of late reports by cooperating firms, are incorporated in the supplementary tabulation mentioned above. This supplementary tabulation covers these 13 metropolitan areas as well as other metropolitan areas and cities having a population of 100,000 or more according to the 1930 Census of Population.

TABLE 5.—*Comparison of Employment and Pay Rolls in Identical Establishments in February and March 1940, by Principal Metropolitan Areas*

Metropolitan area	Number of establishments March 1940	Number on pay roll March 1940	Percentage change from February 1940	Amount of pay roll (1 week) March 1940	Percentage change from February 1940
New York [1]	14,138	703,565	+1.3	$20,095,022	+3.6
Chicago [2]	4,325	449,355	−.3	12,607,674	−.6
Philadelphia [3]	2,427	219,472	−.4	6,092,075	+.3
Detroit	1,649	350,337	+1.0	11,928,063	+.6
Los Angeles [4]	2,945	174,350	+1.3	5,078,424	+1.5
Cleveland	1,375	129,375	+1.5	3,696,898	+1.3
St. Louis	1,401	128,914	+1.6	3,245,657	+1.7
Baltimore	1,149	117,588	+1.6	3,029,637	+3.7
Boston [5]	3,082	188,887	+(7)	4,785,264	+1.0
Pittsburgh	1,248	192,753	−1.7	5,482,458	−2.2
San Francisco [6]	1,650	80,564	+.7	2,505,713	+1.6
Buffalo	797	75,906	−(7)	2,073,880	−.6
Milwaukee	955	99,982	+3.0	2,886,721	+3.0

[1] Does not include Elizabeth, Jersey City, Newark, or Paterson, N. J., or Yonkers, N. Y.
[2] Does not include Gary, Ind.
[3] Does not include Camden, N. J.
[4] Does not include Long Beach, Calif.
[5] Does not include Cambridge, Lynn, or Somerville, Mass.
[6] Does not include Oakland, Calif.
[7] Less than 1/10 of 1 percent.

Building Operations

SUMMARY OF BUILDING CONSTRUCTION IN PRINCIPAL CITIES, APRIL 1940[1]

NEW residential building-construction permit valuations in April were 21.8 percent higher than in March. Increases in new residential construction were reported in all city size groups. Permit valuations increased 11.9 percent from March to April for new nonresidential construction, and additions, alterations, and repairs to existing structures registered a gain of 22.9 percent. There was an increase of 19.5 percent in April for all classes of construction.

Permit valuations for new residential buildings in April 1940 as compared with April 1939 showed an increase of 37.2 percent. Likewise new nonresidential building construction rose 12.4 percent over the year period. Permit valuations for additions, alterations, and repairs to existing structures fell off 0.3 percent. However, all classes of building construction, as measured by the value of permits issued, showed an increase of 23.4 percent.

Comparison of April 1940 with March 1940 and April 1939

A summary of building construction in 2,046 identical cities in April 1940, March 1940, and April 1939 is given in table 1.

TABLE 1.—*Summary of Building Construction for Which Permits Were Issued in 2,046 Identical Cities, April 1940*

Class of construction	Number of buildings			Permit valuation		
	April 1940	Percentage change from—		April 1940	Percentage change from—	
		March 1940	April 1939		March 1940	April 1939
All construction	79,775	+33.0	+23.0	$197,783,260	+19.5	+23.4
New residential	23,780	+15.3	+34.5	119,836,407	+21.8	+37.2
New nonresidential	13,987	+52.3	+24.8	46,331,854	+11.9	+12.4
Additions, alterations, and repairs	42,008	+39.3	+16.8	31,614,999	+22.9	−.3

A summary of permit valuations of housekeeping dwellings and the number of families provided for in new dwellings in 2,046 identical cities, having a population of 1,000 and over, is shown in table 2 for April 1940 compared with March 1940 and April 1939.

[1] More detailed information by geographic divisions and individual cities is given in a separate pamphlet entitled "Building Construction, April 1940," copies of which will be furnished upon request.

TABLE 2.—*Permit Valuation of Housekeeping Dwellings and Number of Families Provided for in 2,046 Identical Cities, April 1940*

Type of dwelling	Permit valuation of housekeeping dwellings			Number of families provided for in new dwellings		
	April 1940	Percentage change from—		April 1940	Percentage change from—	
		March 1940	April 1939		March 1940	April 1939
All types	$118,114,047	+21.0	+37.4	33,219	+21.3	+39.6
1-family	86,802,930	+19.2	+35.0	22,035	+16.0	+33.5
2-family [1]	4,177,743	−17.0	+34.2	1,689	−12.6	+31.9
Multifamily [2]	27,133,374	+37.3	+46.0	9,495	+47.2	+57.8

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

Construction During First 4 Months, 1939 and 1940

Cumulative totals for the first 4 months of 1940 compared with the same months of the preceding year are shown in table 3. The data are based on reports received from cities having a population of 1,000 and over.

TABLE 3.—*Permit Valuation of Building Construction in Reporting Cities of 1,000 Population and Over, First 4 Months, 1939 and 1940*

Class of construction	Permit valuation of building construction, first 4 months of—		Percentage change
	1940	1939	
All construction	$619,619,445	$626,690,311	−1.1
New residential	360,682,481	322,402,612	+11.9
New nonresidential	157,869,125	190,369,172	−17.1
Additions, alterations and repairs	101,067,839	113,918,527	−11.3

Table 4 presents the permit valuation of housekeeping dwellings and number of family-dwelling units provided in cities with a population of 1,000 and over for the first 4 months of 1939 and 1940.

TABLE 4.—*Permit Valuation of Housekeeping Dwellings and Number of Family-Dwelling Units, First 4 Months, 1939 and 1940, by Type of Dwelling*

Type of dwelling	Permit valuation of housekeeping dwellings, first 4 months of—		Percentage change	Number of family-dwelling units, first 4 months of—		Percentage change
	1940	1939		1940	1939	
All types	$357,037,521	$318,331,471	+12.2	100,522	88,795	+13.2
1-family	242,153,507	219,408,838	+10.4	62,213	56,520	+10.1
2-family [1]	12,311,690	12,448,119	−1.1	5,078	4,794	+5.9
Multifamily [2]	102,572,324	86,474,514	+18.6	33,231	27,481	+20.9

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

Analysis by Size of City, April 1940

Table 5 shows the value of permits issued for building construction in April 1940 compared with March 1940 and April 1939, by size of city and by class of construction.

TABLE 5.—*Permit Valuation of Building Construction in 2,046 Identical Cities, by Size of City, April 1940*

Size of city	Number of cities	Total construction			New residential buildings		
		Permit valuation, April 1940	Percentage change from—		Permit valuation, April 1940	Percentage change from—	
			March 1940	April 1939		March 1940	April 1939
Total, all reporting cities	2,046	$197,783,260	+19.5	+23.4	$119,836,407	+21.8	+37.2
500,000 and over	14	70,063,577	+20.3	+46.7	39,009,610	+15.8	+48.6
100,000 and under 500,000	79	40,615,523	+6.1	+9.1	25,087,945	+7.5	+25.2
50,000 and under 100,000	95	18,540,079	+17.1	+21.6	10,184,868	+21.9	+35.4
25,000 and under 50,000	166	20,488,748	+31.4	+27.2	12,372,482	+44.3	+46.0
10,000 and under 25,000	416	23,579,468	+24.0	−1.8	15,220,963	+37.4	+25.6
5,000 and under 10,000	363	13,171,902	+41.5	+26.1	9,663,539	+42.0	+36.6
2,500 and under 5,000	457	7,338,924	+26.3	+19.3	5,182,482	+28.4	+44.6
1,000 and under 2,500	456	3,985,039	+15.7	+18.7	3,114,518	+25.8	+35.5

Size of city	New nonresidential buildings			Additions, alterations, and repairs			Population (census of 1930)
	Permit valuation, April 1940	Percentage change from—		Permit valuation, April 1940	Percentage change from—		
		March 1940	April 1939		March 1940	April 1939	
Total, all reporting cities	$46,331,854	+11.9	+12.4	$31,614,999	+22.9	−0.3	59,868,725
500,000 and over	21,717,302	+48.3	+182.6	9,336,665	−5.5	−32.4	21,449,853
100,000 and under 500,000	7,281,644	−23.5	−36.3	8,245,934	+52.3	+43.2	15,017,880
50,000 and under 100,000	4,734,839	+11.1	−7.0	3,620,372	+12.6	+37.5	6,326,440
25,000 and under 50,000	4,222,075	−7.5	−10.0	3,894,191	+59.0	+32.1	5,814,803
10,000 and under 25,000	4,225,360	−16.5	−48.4	4,133,145	+43.4	+11.5	6,336,134
5,000 and under 10,000	2,227,861	+61.5	+15.7	1,280,502	+14.0	−11.2	2,551,770
2,500 and under 5,000	1,381,417	+8.4	−19.6	775,025	+55.5	−8.6	1,643,083
1,000 and under 2,500	541,356	−23.2	+7.4	329,165	+25.6	−40.5	728,762

The permit valuation of housekeeping dwellings in the 2,046 identical cities reporting for March and April 1940, together with the number of family-dwelling units provided in new dwellings, by size of city, is given in table 6.

TABLE 6.—*Permit Valuation of Housekeeping Dwellings and Number of Families Provided for in 2,046 Identical Cities, by Size of City, March and April 1940*

Size of city	Permit valuation of housekeeping dwellings			Number of families provided for in—							
	April 1940	March 1940	Percentage change	All types		1-family dwellings		2-family dwellings[1]		Multifamily dwellings[2]	
				Apr. 1940	Mar. 1940	Apr. 1940	Mar. 1940	Apr. 1940	Mar. 1940	Apr. 1940	Mar. 1940
Total, all reporting cities	$118,114,047	$97,622,204	+21.0	33,219	27,382	22,035	19,000	1,689	1,932	9,495	6,450
500,000 and over	38,765,610	33,366,585	+16.2	10,585	8,785	4,845	4,626	471	775	5,269	3,384
100,000 and under 500,000	25,056,365	23,323,995	+7.4	7,290	6,870	4,764	4,437	410	416	2,116	2,017
50,000 and under 100,000	10,149,468	8,030,890	+26.4	2,877	2,438	2,211	1,983	237	248	429	207
25,000 and under 50,000	11,922,282	8,574,049	+39.1	3,602	2,613	2,639	2,017	244	193	719	403
10,000 and under 25,000	14,963,463	11,049,742	+35.4	4,155	3,104	3,757	2,774	153	121	245	209
5,000 and under 10,000	9,085,039	6,778,128	+34.0	2,495	1,865	1,946	1,604	74	92	475	169
2,500 and under 5,000	5,154,782	4,032,410	+27.8	1,482	1,068	1,204	988	68	44	210	36
1,000 and under 2,500	3,017,038	2,466,405	+22.3	733	639	669	571	32	43	32	25

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

The information on building permits issued is based on reports received by the Bureau of Labor Statistics from 2,046 identical cities having a population of 1,000 and over.

The information is collected by the Bureau of Labor Statistics from local building officials, except in the States of Illinois, Massachusetts, New Jersey, and Pennsylvania, where the State departments of labor collect the data and forward to the Bureau. In New York and North Carolina the information from the smaller cities is collected by the Bureau of Labor Statistics from local building officials and the information from the larger cities is collected and forwarded to the Bureau by the State departments of labor. The permit valuations shown in this report are estimates made by prospective builders on applying for permits to build. No land costs are included. Only building projects within the corporate limits of the cities enumerated are included in the Bureau's tabulation. The data collected by the Bureau of Labor Statistics show, in addition to private and municipal construction, the value of buildings for which contracts were awarded by the Federal and State Governments in the cities included in the report. For April 1940 the value of these buildings amounted to $18,653,000, for March 1940 to $18,617,000, and for April 1939 to $9,648,000.

Construction from Public Funds

The value of contracts awarded and force-account work started during April 1940, March 1940, and April 1939, on construction projects financed wholly or partially from various Federal funds, is shown in table 7.

TABLE 7.—*Value of Contracts Awarded and Force-Account Work Started on Projects Financed From Federal Funds, March and April, 1940 and April 1939* [1]

Federal agency	Contracts awarded and force-account work started		
	April 1940	March 1940 [2]	April 1939 [2]
Total	$59,871,043	$112,206,870	$131,713,732
Public Works Administration:			
Federal	76,864	642,374	2,104,737
Non-Federal:			
NIRA	229,041	391,229	315,011
ERAA	1,009,045	329,240	9,978,697
PWAA 1938	3,710,148	10,707,275	81,311,413
Federal agency projects under WPA	46,157	406,052	2,410,189
Regular Federal appropriations	45,679,451	87,925,081	29,464,079
U. S. Housing Authority	9,120,337	11,805,619	6,129,606

[1] Preliminary, subject to revision.
[2] Revised.

The value of public-building and highway construction awards financed wholly from appropriations from State funds, as reported by the various State governments for April 1940, March 1940, and April 1939, is shown in the following statement:

	Public buildings	*Highway construction*
April 1940	$1,489,335	$10,176,529
March 1940	602,000	6,642,258
April 1939	3,485,181	2,563,411

Retail Prices

FOOD PRICES IN APRIL 1940

RETAIL costs of food for 51 cities combined increased 1.4 percent between March 12 and April 16, due in large measure to seasonal advances for the more important fresh fruits and vegetables and to higher prices for fresh meats and bread. Although declines were reported for 20 items of food, they were relatively unimportant except in the case of cured pork, eggs, butter, green beans, and spinach.

The "all foods" index for April was 78.2 percent of the 1923–25 average. It was 2.1 percent higher than April 1939 when the index was 76.6. Increases from a year ago for four of the eight commodity groups ranged from 2.7 percent for sugar to 11.1 percent for dairy products. Meats were 4.8 percent lower than a year ago and decreases of 5.4 percent, 1.7 percent, and 1.4 percent were shown for fats and oils, beverages, and eggs, respectively. The April index for all foods was 30.1 percent above the level of the corresponding month of 1933 when the index was 60.1. It was 22.4 percent lower than in April 1929 when the index stood at 100.8.

Details by Commodity Groups

The costs of cereals and bakery products increased 0.8 percent, due largely to higher prices for bread. Increases in the prices of white bread in nine cities resulted in an average increase of 1.2 percent for 51 cities combined. The average price of white bread in April was higher than at any time since September 1938. Prices of whole-wheat and rye bread which increased 1.1 percent over the month were also higher than for any month since the latter part of 1938. The average price of rolled oats increased 1.4 percent, showing the first change for this item since September 1939. All other items in the group remained unchanged.

Meat costs continued to advance, showing an increase of 1.5 percent for the month, but were still 4.8 percent lower than a year ago. The average price of pork chops, which rose 11.4 percent between March and April, was largely responsible for the rise in the costs of all meats and wholly responsible for an increase of 2.3 percent in the average

cost of the pork items. The price of pork chops, which was at the lowest level in the past 6 years in February, has advanced for the past 2 months. Prices of cured pork declined in April to new low levels for the past 5 years. The beef items moved upward 0.6 percent, due to advances for round steak and rib roast. Prices for leg of lamb rose 6.3 percent on the average, considerably more than is usual at this season. Roasting chicken prices continued an advance which began in January of this year and were 3.5 percent higher than in March. The average price of pink salmon increased 1.3 percent and was higher than at any time since it was first priced in January 1935.

The index for dairy products registered a seasonal decline of 1.4 percent. All items in the group were lower than a month ago with the exception of evaporated milk for which no change was recorded. Butter prices declined 2.2 percent, fresh milk 0.8 percent, and cheese 1.2 percent.

Egg prices following the usual seasonal trend declined 4.9 percent. The decrease was general with lower prices reported for 42 of the 51 cities.

Costs of all fruits and vegetables advanced 7.2 percent, which is greater than the increase usual at this season of the year. Potatoes, the most important item in the group, advanced 11.3 percent and were 11.0 percent higher than for a year ago. Onions rose 1.6 cents per pound to a point almost 20 percent higher than for a year ago. Other fresh items showing advances were: Sweetpotatoes, 10.0 percent; lettuce, 18.3 percent; oranges, 5.8 percent; and apples, 8.2 percent. Spinach, carrots, and bananas declined 15.7 percent, 1.9 percent, and 1.6 percent, respectively. A limited number of quotations available for green beans indicated a drop of approximately 10 cents per pound. The only changes in the canned and dried fruit and vegetable items were an increase of 1.0 percent for canned green beans and a decline of 0.9 percent for canned corn.

In the beverage group a decline of 0.5 percent in the price of coffee represented the only change.

Fats and oils moved downward 1.2 percent due to lower prices for lard, which declined 2.1 percent for the month to the lowest level in the past 6 years. Decreases of less than 1 percent were shown for shortening and for oleomargarine. The average price for salad dressing increased slightly.

Sugar prices declined for the seventh successive month, showing a decrease of 0.8 percent.

Indexes of retail food costs for April and March 1940, together with indexes for April 1939, 1933, and 1929, are shown in table 1. The accompanying chart shows the trend in the cost of all foods and of each major commodity group for the period from January 1929 to April 1940, inclusive.

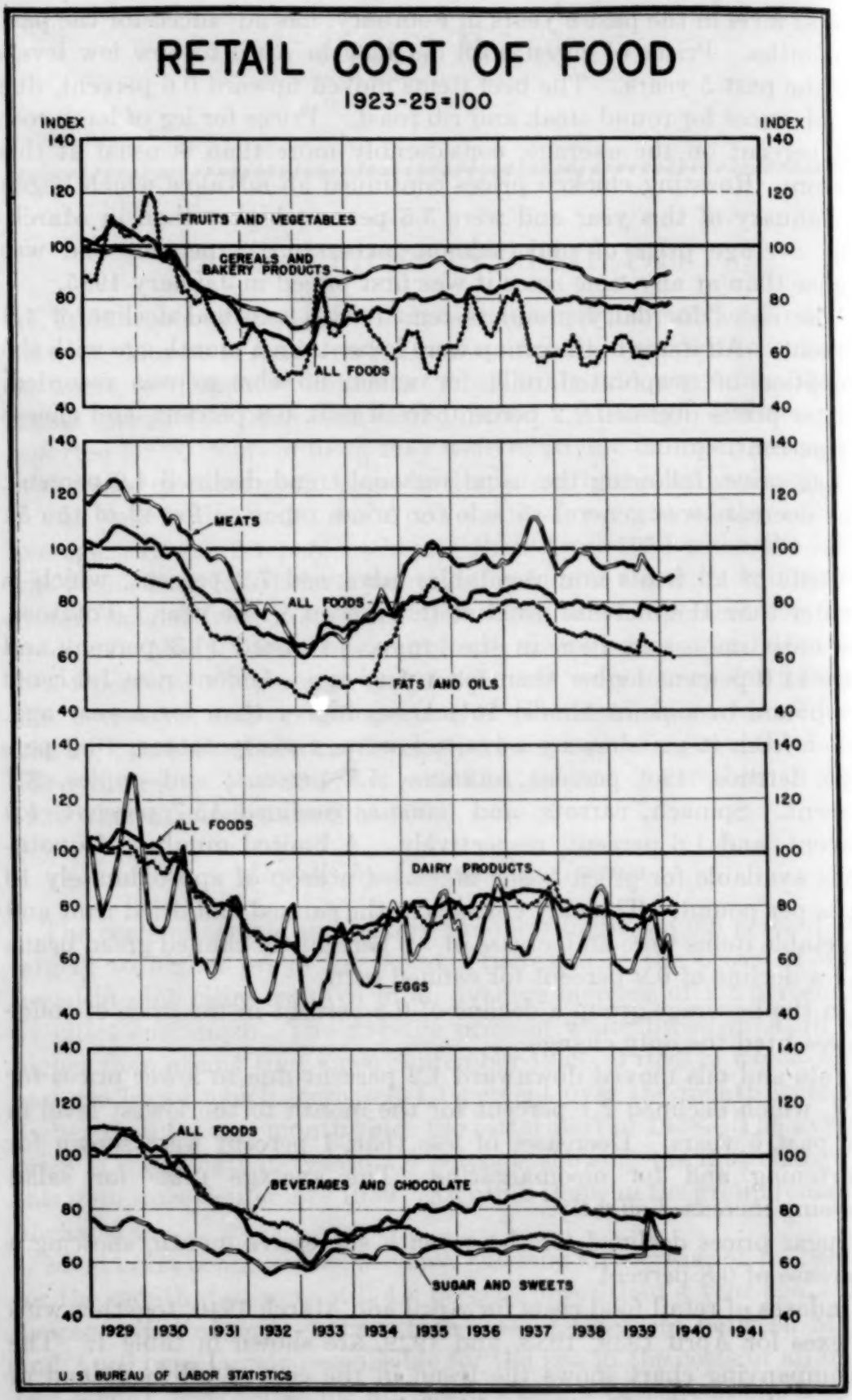

RETAIL COST OF FOOD
1923-25=100
INDEX
FRUITS AND VEGETABLES
CEREALS AND BAKERY PRODUCTS
ALL FOODS
MEATS
ALL FOODS
FATS AND OILS
ALL FOODS
DAIRY PRODUCTS
EGGS
ALL FOODS
BEVERAGES AND CHOCOLATE
SUGAR AND SWEETS
140
120
100
80
60
40
1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941
U S BUREAU OF LABOR STATISTICS

TABLE 1.—*Indexes of Retail Food Costs in 51 Large Cities Combined,*[1] *by Commodity Groups, April and March 1940, and April 1939, 1933, and 1929*

[1923-25=100]

Commodity group	1940		1939	1933	1929
	April 16 [2]	March 12	April 18	April 15	April 15
All foods	78.2	77.1	76.6	60.1	100.8
Cereals and bakery products	89.4	88.7	85.1	69.8	98.2
Meats	89.6	88.3	94.1	63.4	120.7
Dairy products	80.2	81.3	72.2	60.4	102.9
Eggs	54.6	57.4	55.4	40.7	76.4
Fruits and vegetables	67.2	62.7	64.9	54.4	87.3
Fresh	66.4	61.3	64.4	54.0	85.1
Canned	75.1	75.0	73.9	65.2	97.3
Dried	63.5	63.7	56.8	48.2	101.7
Beverages	64.9	65.1	66.0	68.4	111.0
Fats and oils	59.6	60.3	63.0	44.7	93.7
Sugar	63.7	64.1	62.0	58.1	72.8

[1] Aggregate costs of 84 foods in each city prior to September 1939, and of 53 foods since that date weighted to represent total purchases, have been combined for the United States with the use of population weights.
[2] Preliminary.

Prices of 21 of 61 foods priced were higher in April than in March, 20 were lower, and 20 showed no change. Compared with April 1939 (when 60 of these foods were priced), 33 foods cost more and 27 cost less.

Average prices of each of 61 foods for 51 cities combined are shown in table 2 for April and March 1940 and April 1939.

TABLE 2.—*Average Retail Prices of 61 Foods in 51 Large Cities Combined,*[1] *April and March 1940 and April 1939*

Article		1940		1939
		April 16 [2]	March 12	April 18
Cereals and bakery products:				
Cereals:		*Cents*	*Cents*	*Cents*
Flour, wheat	10 pounds	45.5	45.2	36.0
Macaroni	pound	14.3	14.3	14.3
Wheat cereal [3]	28-oz. pkg.	23.7	23.7	24.2
Corn flakes	8-oz. pkg.	7.0	7.0	7.3
Corn meal	pound	4.6	4.6	4.5
Rice [3]	do	7.9	7.9	7.5
Rolled oats [3]	do	7.2	7.1	7.1
Bakery products:				
Bread, white	do	8.3	8.2	8.0
Bread, whole-wheat	do	9.5	9.4	9.2
Bread, rye	do	9.6	9.5	9.2
Soda crackers	do	15.4	15.4	15.2
Meats:				
Beef:				
Round steak	do	34.2	33.8	36.2
Rib roast	do	28.1	28.0	30.3
Chuck roast	do	22.1	22.1	23.9
Veal:				
Cutlets	do	40.9	41.5	43.1
Pork:				
Chops	do	27.3	24.5	30.6
Bacon, sliced	do	26.2	27.1	33.4
Ham, sliced	do	41.6	42.1	46.6
Ham, whole	do	23.1	23.9	28.2
Salt pork	do	13.9	14.1	18.7

See footnotes at end of table.

TABLE 2.—*Average Retail Prices of 61 Foods in 51 Large Cities Combined,*[1] *April and March 1940 and April 1939—Continued*

Article		1940		1939
		April 16	March 12	April 18
Meats—Continued.				
Lamb:		*Cents*	*Cents*	*Cents*
Leg	pound	28.7	27.0	28.5
Rib chops	do	36.4	34.4	36.4
Poultry:				
Roasting chickens	do	29.5	28.5	31.1
Fish:				
Salmon, pink	16-oz. can	15.5	15.3	12.6
Salmon, red [3]	do	25.6	25.4	22.9
Dairy products:				
Butter	pound	35.0	35.8	30.0
Cheese	do	25.6	25.9	24.4
Milk, fresh (delivered)	quart	12.9	13.0	11.7
Milk, fresh (store)	do	11.7	11.9	10.9
Milk, fresh (delivered and store)[2]	do	12.6	12.7	11.5
Milk, evaporated	14½-oz. can	7.1	7.1	6.8
Eggs	dozen	27.7	29.1	28.1
Fruits and vegetables:				
Fresh:				
Apples	pound	5.3	4.9	5.7
Bananas	do	6.3	6.4	6.2
Oranges	dozen	27.2	25.7	24.4
Beans, green	pound	12.3	23.0	12.6
Cabbage	do	4.2	4.0	5.1
Carrots	bunch	5.1	5.2	5.4
Lettuce	head	9.7	8.2	7.7
Onions	pound	5.4	3.8	4.6
Potatoes	15 pounds	42.3	38.0	38.7
Spinach	pound	5.9	7.0	5.9
Sweetpotatoes	do	4.4	4.0	4.5
Canned:				
Peaches	No. 2½ can	17.0	17.0	16.7
Pineapple	do	21.2	21.2	21.3
Beans, green [3]	No. 2 can	10.1	10.0	10.3
Corn	do	10.5	10.6	10.3
Peas	do	13.9	13.9	13.4
Tomatoes	do	8.5	8.5	8.6
Dried:				
Prunes	pound	9.9	9.9	9.1
Navy beans	do	6.6	6.6	5.8
Beverages:				
Coffee	do	21.7	21.8	22.6
Tea	¼ pound	17.7	17.7	17.6
Cocoa [3]	8-oz. can	9.1	9.1	8.5
Fats and oils:				
Lard	pound	9.3	9.5	10.7
Shortening, other than lard:				
In cartons	do	11.9	12.0	12.4
In other containers	do	19.3	19.4	20.3
Salad dressing [4]	pint	21.5	21.4	----
Oleomargarine	pound	15.5	15.6	16.3
Peanut butter	do	17.9	17.9	18.0
Sugar and sweets:				
Sugar	10 pounds	52.5	52.9	51.2
Corn sirup [3]	24-oz. can	13.4	13.4	13.8
Molasses [3]	18-oz. can	13.5	13.5	13.6

[1] Since September 1939, supermarket prices have been substituted for those of certain service stores.
[2] Preliminary.
[3] Not included in index.
[4] Effective January 1940, salad dressing replaced mayonnaise in the food-cost index.

Details by Regions and Cities

Higher food costs in April as compared with March were reported for 46 of the 51 cities. The greatest increases were Springfield (Ill.), 3.6 percent; Detroit, 3.4 percent; and Chicago, 3.2 percent. All three cities are in the East North Central area. Increases in the costs of meats, fresh fruits, and vegetables, which amounted to considerably more than the average for all cities, were responsible for the rise in the cost of all foods in these three cities.

The five cities showing declines for the month were Minneapolis, 2.4 percent; Columbus, 0.9 percent; Birmingham, 0.9 percent; Los Angeles, 0.8 percent; and Portland (Oreg.), 0.1 percent. Substantial decreases in the costs of dairy products and eggs, combined with declines or less-than-average increases in the costs of fruits and vegetables, resulted in lower costs of all foods in Minneapolis, Columbus, and Portland (Oreg.). Lower prices of fruits and vegetables forced the costs of all foods down in Birmingham, while in Los Angeles dairy products, meats, fresh fruits, and vegetables contributed to the decline.

Indexes of food costs by cities are presented in table 3 for April and March 1940 and April 1939.

TABLE 3.—*Indexes of the Average Retail Cost of All Foods, by Cities,*[1] *April and March 1940 and April 1939*

[1923–25=100]

Region and city	1940		1939	Region and city	1940		1939
	April 16[2]	March 12	April 18		April 16	March 12	April 18
United States	78.2	77.1	76.6	West North Central—Con.			
				St. Louis	82.2	81.7	82.7
New England:				St. Paul	78.7	77.4	79.2
Boston	75.1	73.7	73.9	South Atlantic:			
Bridgeport	81.8	80.8	79.1	Atlanta	70.8	70.5	70.3
Fall River	79.6	78.9	78.7	Baltimore	82.2	81.1	83.8
Manchester	80.9	79.8	79.1	Charleston, S. C	77.4	77.1	76.1
New Haven	80.1	79.2	78.3	Jacksonville	76.0	74.7	73.9
Portland, Maine	77.6	76.6	75.5	Norfolk	73.8	73.7	74.1
Providence	76.4	75.5	74.5	Richmond	69.8	68.8	70.4
Middle Atlantic:				Savannah	77.4	77.0	75.5
Buffalo	79.2	77.6	76.5	Washington, D. C	79.4	78.2	80.4
Newark	82.3	81.6	80.1	East South Central:			
New York	82.0	81.3	77.6	Birmingham	65.5	66.1	65.6
Philadelphia	78.7	77.1	78.4	Louisville	81.5	81.4	80.5
Pittsburgh	74.7	74.0	73.6	Memphis	73.4	72.6	72.8
Rochester	79.3	78.5	76.2	Mobile	72.4	71.7	73.5
Scranton	75.8	75.0	73.5	West South Central:			
East North Central:				Dallas	69.3	68.7	70.2
Chicago	80.6	78.1	78.0	Houston	77.3	76.3	75.8
Cincinnati	76.7	76.5	77.4	Little Rock	72.1	71.3	72.1
Cleveland	79.1	78.4	78.7	New Orleans	84.4	82.8	82.7
Columbus, Ohio	75.1	75.8	76.2	Mountain:			
Detroit	77.1	74.6	74.7	Butte	75.4	74.1	73.2
Indianapolis	78.5	76.7	76.0	Denver	80.3	79.0	82.4
Milwaukee	79.5	78.4	79.3	Salt Lake City	77.2	75.9	73.9
Peoria	79.1	77.1	78.1	Pacific:			
Springfield, Ill	75.8	73.2	75.3	Los Angeles	70.6	71.2	69.8
West North Central:				Portland, Oreg	78.0	78.1	78.2
Kansas City	76.4	75.7	80.4	San Francisco	80.9	80.1	78.9
Minneapolis	82.5	84.5	83.2	Seattle	80.2	79.6	77.4
Omaha	76.5	75.1	75.5				

[1] Aggregate costs of 84 foods in each city prior to September 1939 and of 53 foods since that date, weighted to represent total purchases, have been combined for the United States with the use of population weights.
[2] Preliminary.

COAL PRICES IN MARCH 1940

RETAIL prices of coal as of the 15th of March, June, September, and December are collected in 51 cities. Average prices of bituminous coal declined slightly between December 1939 and March 1940. In

contrast, prices of Pennsylvania anthracite showed increases ranging between 0.7 percent for buckwheat and 5.7 percent for pea.

The increase of 4.3 percent for stove and 5.0 percent for chestnut for the corresponding period in 1940 contrasts sharply with price changes reported for earlier years. For the past 20 years prices of stove and chestnut sizes of Pennsylvania anthracite tended generally downward or showed relatively little change during the first 3 months of the year.

A slight decrease since December 1939 in the average price of Arkansas anthracite was due to slightly lower prices in one of the eight reporting cities. There were no changes in prices of Colorado and New Mexico anthracite.

Average prices of coal, together with indexes for bituminous coal and for Pennsylvania anthracite compared with the 3-year period October 1922 through September 1925 as 100, are presented in table 4 for March 1940 and December and March 1939.

TABLE 4.—*Average Retail Prices of Coal in Large Cities Combined, March 1940 and December and March 1939*

Kind of coal	Average retail price per ton of 2,000 pounds			Index of retail price (October 1922–September 1925=100)			Percentage change Mar. 15, 1940, compared with—	
	1940	1939		1940	1939		1939	
	Mar. 15 [1]	Dec. 15	Mar. 15	Mar. 15 [1]	Dec. 15	Mar. 15	Dec. 15	Mar. 15
Bituminous coal (38 cities), old series [2]	$8.65	$8.68	$8.68	89.0	89.2	89.4	−0.3	−0.3
Pennsylvania anthracite (25 cities) new series: [3]								
Stove	11.31	10.84	11.28	80.4	77.0	80.2	+4.3	+.3
Chestnut	11.37	10.83	11.35	81.0	77.1	80.8	+5.0	+.2
Pea	9.34	8.84	9.03	------	------	------	+5.7	+3.4
Buckwheat	7.72	7.67	7.71	------	------	------	+.7	+.1
Western anthracite: [2]								
Arkansas (8 cities)	12.45	12.50	12.84	------	------	------	−.4	−3.0
Colorado (1 city)	15.81	15.81	15.81	------	------	------	0	0
New Mexico (1 city)	23.86	23.86	23.69	------	------	------	0	+.7

[1] Preliminary.
[2] Unweighted average. Weighted composite prices are in preparation.
[3] Weighted on the basis of the distribution by rail or rail and tidewater to each city during the 12-month period from Aug. 1, 1935, to July 31, 1936.

Details by Kinds of Coal [1]

Bituminous coal.—Prices of one or more kinds of bituminous coal are reported from 47 of the 51 cities. Prices of low-volatile coal from 28 cities and of eastern high-volatile coal from 27 cities are secured from the Atlantic and Central areas. Seventeen of these cities report on both kinds. Western high-volatile coal is represented by prices from 20 cities in the Central and Pacific areas. Nine of these cities do not report for other kinds of bituminous coal.

[1] A mimeographed report of prices by cities is available upon request.

Prices of low-volatile coal were generally lower in March 1940 than in December 1939. In most of the reporting cities the changes were relatively unimportant. With the exception of Norfolk where prices dropped $2 per ton for lump, egg, and nut, and $1.50 per ton for stoker and run of mine, none of the decreases amounted to more than 40 cents. A few scattered cities reported advances, the greatest of which was 50 cents per ton.

Little or no price changes for high-volatile coal were recorded for a majority of the reporting cities. The tendency was generally upward, with the greatest increase amounting to 50 cents per ton. This advance was counteracted by relatively small decreases in a few cities and a drop of from $1 to $1.50 per ton for eastern high-volatile coal in Norfolk.

Anthracite.—Higher prices of Pennsylvania anthracite in March compared with December were recorded in many of the reporting cities. The increases ranged from a few cents to 84 cents per ton for one or more sizes. In most instances the advances were greater than 20 cents per ton. A few cities showed decreases, none of which amounted to more than 10 cents per ton, except in Norfolk where prices of stove and chestnut declined $1 per ton while pea and buckwheat remained unchanged. A slight advance in prices of Arkansas anthracite was shown for one of the eight cities reporting on this kind of coal. There were no changes in the remaining seven cities. Prices of Colorado and New Mexico anthracite also remained unchanged

Wholesale Prices

WHOLESALE PRICES IN APRIL 1940 [1]

THE Bureau of Labor Statistics monthly index of 863 wholesale price series rose 0.3 percent from March to April. Marked advances in prices of farm products and foods contributed largely to the increase. The all-commodity index rose to 78.6 percent of the 1926 average and partially offset the decline in March. It was 3.1 percent above a year ago.

During the month farm products and foods rose 2.2 percent and 2.0 percent, respectively. Miscellaneous commodities advanced 1 percent, and housefurnishing goods increased 0.5 percent. The textile products group declined 1.5 percent; metals and metal products, 1.0 percent; building materials, 0.9 percent; fuel and lighting materials, 0.6 percent; and chemicals and allied products, 0.3 percent. Hides and leather products remained unchanged from the March level. Compared with the level of a year ago each of the 10 major commodity groups, except fuel and lighting materials, was substantially higher. Hides and leather products advanced 12 percent; farm products and textile products, about 9 percent; foods and miscellaneous commodities, nearly 4½ percent; building materials and housefurnishing goods, more than 3 percent; chemicals and allied products, 1.6 percent; and metals and metal products, 0.5 percent. The fuel and lighting materials group was 2.2 percent below the level of a year ago.

Higher prices for agricultural commodities, bananas, hides, skins, hemp, and rubber were primarily responsible for an increase of 1.4 percent in the raw materials group index. Semimanufactured commodities, on the other hand, declined 1.9 percent to the lowest level reached since August. Average wholesale prices of manufactured commodities advanced fractionally. Industrial commodity prices as measured by the index for "All commodities other than farm products and foods" fell 0.5 percent to the low point of the year. According to the index for "All commodities other than farm products," average prices for nonagricultural commodities were steady.

The farm products group index rose 2.2 percent to the highest point reached since July 1938. Grains advanced 5.2 percent, the

[1] More detailed information on wholesale prices is given in the Wholesale Price pamphlet and will be furnished upon request.

peak since September 1937. Livestock and poultry increased 1.9 percent. Prices were higher for barley, corn, oats, rye, wheat, cows, steers, hogs, lambs, live poultry, cotton, apples, oranges, hops, peanuts, onions, and potatoes. Calves, ewes, wethers, eggs, lemons, alfalfa hay, fresh milk (Chicago), flaxseed, beans, and wool averaged lower. The farm products group index, 69.4, was nearly 9 percent above a year ago, and grains increased almost 40 percent from a year ago.

Average prices for foods in wholesale markets advanced 2.0 percent during the month. Fruits and vegetables rose 11.9 percent; meats, 2.7 percent; and cereal products, 1.0 percent. Among the individual food items for which higher prices were reported were flour, corn meal, bananas, canned spinach, dressed poultry, beef, lamb, mutton, pork, cocoa beans, lard, glucose, raw sugar, tallow, and cottonseed oil. Dairy products declined 1.5 percent. Quotations were lower for butter, cheese, powdered and evaporated milk, oatmeal, rice, canned and dried fruits, canned tomatoes, bacon, veal, coffee, oleo oil, pepper, tea, and most vegetable oils. Compared with a year ago the foods group index, 71.6, rose 4.4 percent. Dairy products were more than 33 percent higher than in 1939 and cereal product prices gained 15 percent. Meats, on the contrary, were 12 percent lower than in April 1939.

In the hides and leather products group, weakening prices for boys' shoes, calfskins, goatskins, and sole leather were counterbalanced by higher prices for hides and chrome calf leather, with the result that the group index remained unchanged at 101.8 percent of the 1926 average.

Continued declines in prices for clothing, cotton goods, hosiery and underwear, woolen and worsted goods, and silk brought the textile products group index down 1.5 percent to the low point of the year. Lower prices were reported for overalls, broadcloth, drills, duck, flannel, ginghams, muslin, sheeting, osnaburg, percale, tire fabric, cotton yarns, cotton and silk hosiery, underwear, overcoating, jute, cordage, raw silk, and silk yarns. Prices were higher for print cloth, burlap, hemp, and artificial leather. Since January, prices of silk declined 26½ percent; hosiery and underwear, nearly 10 percent; cotton goods and woolen goods, about 7 percent.

Falling prices for coal, fuel oil, and natural gasoline from the Oklahoma field caused the fuel and lighting materials group index to drop 0.6 percent. Prices were higher for kerosene and most gasolines.

Declining prices for iron ore, castings, scrap steel, bars, sheets, strips, range boilers, and nonferrous metals, such as aluminum, pig lead, lead pipe, pig tin, quicksilver, and solder, caused the metals and metal products group index to drop 1.0 percent. Prices were slightly higher for agricultural implements, galvanized pipe, and wood screws.

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As a result of lower prices for lumber, concrete blocks, cement, most paint materials, sand, lime, gravel, and sewer pipe, the building materials group index dipped 0.9 percent to the lowest point since September. Higher prices were reported for ethyl acetate, linseed oil, and prepared roofing.

The chemical and allied products group index decreased 0.3 percent because of lower prices for fats and oils, chemicals, and mixed fertilizer. Drugs and pharmaceuticals and fertilizer materials advanced fractionally.

In the housefurnishing goods group higher prices for cutlery and carpets more than offset lower prices for blankets, sheets, and pillowcases and caused the group index to rise 0.5 percent.

Average wholesale prices of cattle feed rose 5.1 percent during April. Crude rubber advanced 2.9 percent and paper and pulp increased 0.6 percent. Quotations were higher also for automobile tires and tubes. Prices were lower for cylinder oil, paraffin wax, soap, and cooperage.

Index numbers for the groups and subgroups of commodities for March and April 1940 and April 1939 and the percentage changes from a month ago and a year ago are shown in table 1.

TABLE 1.—*Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities, April 1940, Compared With March 1940 and April 1939*

[1926=100]

Group and subgroup	April 1940	March 1940	Change from a month ago	April 1939	Change from a year ago
			Percent		*Percent*
All commodities	**78.6**	**78.4**	**+0.3**	**76.2**	**+3.1**
Farm products	**69.4**	**67.9**	**+2.2**	**63.7**	**+8.9**
Grains	77.2	73.4	+5.2	55.2	+39.9
Livestock and poultry	68.4	67.1	+1.9	75.5	−9.4
Other farm products	67.4	66.3	+1.7	58.5	+15.2
Foods	**71.6**	**70.2**	**+2.0**	**68.6**	**+4.4**
Dairy products	77.4	78.6	−1.5	58.1	+33.2
Cereal products	83.2	82.4	+1.0	72.2	+15.2
Fruits and vegetables	65.7	58.7	+11.9	64.3	+2.2
Meats	71.1	69.2	+2.7	81.0	−12.2
Other foods	63.2	63.0	+.3	61.6	+2.6
Hides and leather products	**101.8**	**101.8**	**0**	**90.9**	**+12.0**
Shoes	108.2	108.4	−.2	101.2	+6.9
Hides and skins	94.8	94.3	+.5	68.3	+38.8
Leather	93.2	93.5	−.3	82.8	+12.6
Other leather products	100.0	100.0	0	95.6	+4.6
Textile products	**72.9**	**74.0**	**−1.5**	**66.9**	**+9.0**
Clothing	84.7	85.1	−.5	81.6	+3.8
Cotton goods	70.2	71.8	−2.2	63.4	+10.7
Hosiery and underwear	61.7	62.2	−.8	60.2	+2.5
Rayon	29.5	29.5	0	28.5	+3.5
Silk	45.4	49.9	−9.0	41.1	+10.5
Woolen and worsted goods	83.8	84.5	−.8	75.2	+11.4
Other textile products	74.6	74.9	−.4	64.9	+14.9

TABLE 1.—*Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities, April 1940, Compared With March 1940 and April 1939*—Continued

[1926=100]

Group and subgroup	April 1940	March 1940	Change from a month ago	April 1939	Change from a year ago
			Percent		*Percent*
Fuel and lighting materials	**71.8**	**72.2**	**−.6**	**73.4**	**−2.2**
Anthracite	77.4	79.2	−2.3	74.7	+3.6
Bituminous coal	96.4	97.3	−.9	98.6	−2.2
Coke	109.6	109.6	0	104.2	+5.2
Electricity	(1)	77.1	----------	81.4	----------
Gas	(1)	80.4	----------	84.1	----------
Petroleum and products	50.4	50.4	0	51.9	−2.9
Metals and metal products	**94.5**	**95.5**	**−1.0**	**94.0**	**+.5**
Agricultural implements	93.5	93.4	+.1	93.3	+.2
Farm machinery	94.7	94.7	0	94.6	+.1
Iron and steel	94.3	96.4	−2.2	96.1	−1.9
Motor vehicles [2]	94.8	94.8	0	93.4	+1.5
Nonferrous metals	79.2	79.7	−.6	74.7	+6.0
Plumbing and heating	80.9	81.0	−.1	79.3	+2.0
Building materials	**92.5**	**93.3**	**−.9**	**89.6**	**+3.2**
Brick and tile	90.2	90.4	−.2	93.0	−3.0
Cement	90.3	91.2	−1.0	91.5	−1.3
Lumber	96.1	97.8	−1.7	91.5	+5.0
Paint and paint materials	86.7	87.2	−.6	81.3	+6.6
Plumbing and heating	80.9	81.0	−.1	79.3	+2.0
Structural steel	107.3	107.3	0	107.3	0
Other building materials	92.3	92.7	−.4	89.7	+2.9
Chemicals and allied products [3]	**76.8**	**77.0**	**−.3**	**75.6**	**+1.6**
Chemicals [3]	85.0	85.1	−.1	84.6	+.5
Drugs and pharmaceuticals [3]	81.8	81.4	+.5	77.4	+5.7
Fertilizer materials [3]	70.7	70.6	+.1	68.1	+3.8
Mixed fertilizers [3]	73.8	73.9	−.1	72.9	+1.2
Oils and fats [3]	46.8	47.8	−2.1	45.9	+2.0
Housefurnishing goods	**88.4**	**88.0**	**+.5**	**85.4**	**+3.5**
Furnishings	94.5	94.2	+.3	89.6	+5.5
Furniture	81.9	81.5	+.5	81.0	+1.1
Miscellaneous	**77.7**	**76.9**	**+1.0**	**74.4**	**+4.4**
Automobile tires and tubes	58.0	55.6	+4.3	60.5	−4.1
Cattle feed	100.1	95.2	+5.1	92.1	+8.7
Paper and pulp	89.5	89.0	+.6	81.1	+10.4
Rubber, crude	39.4	38.3	+2.9	33.3	+18.3
Other miscellaneous	85.1	85.8	−.8	81.4	+4.5
Raw materials	**73.0**	**72.0**	**+1.4**	**68.5**	**+6.6**
Semimanufactured articles	**78.2**	**79.7**	**−1.9**	**74.4**	**+5.1**
Manufactured products	**81.2**	**81.1**	**+.1**	**80.1**	**+1.4**
All commodites other than farm products	**80.5**	**80.5**	**0**	**78.8**	**+2.2**
All commodities other than farm products and foods	**82.5**	**82.9**	**−.5**	**80.5**	**+2.5**

[1] Data not yet available.
[2] Preliminary revision.
[3] New series.

Index Numbers by Commodity Groups, 1926 to April 1940

Index numbers of wholesale prices by commodity groups for selected years from 1926 to 1939, inclusive, and by months from April 1939 to April 1940, inclusive, are shown in table 2.

TABLE 2.—*Index Numbers of Wholesale Prices, by Groups of Commodities*

[1926=100]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting	Metals and metal products	Building materials	Chemicals and allied products	House-furnishing goods	Miscellaneous	All commodities
By years:											
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1929	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6	95.3
1932	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4	64.8
1933	51.4	60.5	80.9	64.8	66.3	79.8	77.0	72.1	75.8	62.5	65.9
1936	80.9	82.1	95.4	71.5	76.2	87.0	86.7	78.7	81.7	70.5	80.8
1937	86.4	85.5	104.6	76.3	77.6	95.7	95.2	82.6	89.7	77.8	86.3
1938	68.5	73.6	92.8	66.7	76.5	95.7	90.3	77.0	86.8	73.3	78.6
1939	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8	77.1
By months:											
1939:											
April	63.7	68.6	90.9	66.9	73.4	94.0	89.6	75.6	85.4	74.4	76.2
May	63.7	68.2	91.6	67.5	73.9	93.5	89.5	75.6	85.5	74.2	76.2
June	62.4	67.6	92.3	67.3	73.0	93.2	89.5	75.2	85.6	73.8	75.6
July	62.6	67.5	92.5	67.6	72.8	93.2	89.7	74.5	85.6	73.4	75.4
August	61.0	67.2	92.7	67.8	72.6	93.2	89.6	74.2	85.6	73.3	75.0
September	68.7	75.1	98.5	71.7	72.8	94.8	90.9	76.6	86.6	76.6	79.1
October	67.1	73.3	104.6	75.5	73.9	95.8	92.8	77.6	87.8	77.6	79.4
November	67.3	72.3	104.0	76.4	74.1	96.0	93.0	77.4	88.4	77.0	79.2
December	67.6	71.9	103.7	78.0	72.8	96.0	93.0	77.7	88.5	77.4	79.2
1940:											
January	69.1	71.7	103.6	77.9	72.7	95.8	93.4	77.7	87.9	77.7	79.4
February	68.7	71.1	102.4	75.4	72.4	95.3	93.2	77.5	88.2	77.3	78.7
March	67.9	70.2	101.8	74.0	72.2	95.5	93.3	77.0	88.0	76.9	78.4
April	69.4	71.6	101.8	72.9	71.8	94.5	92.5	76.8	88.4	77.7	78.6

The price trend for specified years and months since 1926 is shown in table 3 for the following groups of commodities: Raw materials, semimanufactured articles, manufactured products,[2] commodities other than farm products, and commodities other than farm products and foods. The list of commodities included under the classifications "Raw materials," "Semimanufactured articles," and "Manufactured products" was given in Serial No. R. 1069, Wholesale Prices, December and Year 1939.

[2] Formerly "Finished products."

TABLE 3.—*Index Numbers of Wholesale Prices, by Special Groups of Commodities*

[1926=100]

Year and month	Raw materials	Semimanufactured articles	Manufactured products[1]	All commodities other than farm products	All commodities other than farm products and foods
By years:					
1926	100.0	100.0	100.0	100.0	100.0
1929	97.5	93.9	94.5	93.3	91.6
1932	55.1	59.3	70.3	68.3	70.2
1933	56.5	65.4	70.5	69.0	71.2
1936	79.9	75.9	82.0	80.7	79.6
1937	84.8	85.3	87.2	86.2	85.3
1938	72.0	75.4	82.2	80.6	81.7
1939	70.2	77.0	80.4	79.5	81.3
By months:					
1939:					
April	68.5	74.4	80.1	78.8	80.5
May	68.9	74.3	79.9	78.8	80.6
June	67.7	74.1	79.6	78.4	80.2
By months—Con.					
1939—Con.					
July	67.8	74.4	79.2	78.1	80.2
August	66.5	74.5	79.1	77.9	80.1
September	72.6	81.8	81.9	81.3	82.1
October	72.3	83.1	82.3	82.0	83.8
November	72.4	82.1	82.0	81.6	84.0
December	73.3	82.0	81.7	81.6	83.9
1940:					
January	73.8	81.7	81.7	81.5	83.9
February	72.7	79.9	81.4	80.8	83.2
March	72.0	79.7	81.1	80.5	82.9
April	73.0	78.2	81.2	80.5	82.5

[1] Formerly "Finished products."

Weekly Fluctuations

Weekly fluctuations in the major commodity group classifications during March and April are shown by the index numbers in table 4.

TABLE 4.—*Weekly Index Numbers of Wholesale Prices by Commodity Groups, March and April 1940*

[1926=100]

Commodity group	Apr. 27, 1940	Apr. 20, 1940	Apr. 13, 1940	Apr. 6, 1940	Mar. 30, 1940	Mar. 23, 1940	Mar. 16, 1940	Mar. 9, 1940	Mar. 2, 1940
All commodities	79.0	78.5	78.0	77.6	77.9	77.9	78.2	78.3	78.4
Farm products	71.6	69.6	68.0	67.0	68.1	67.5	68.0	68.5	68.8
Foods	72.8	71.9	70.8	69.7	69.8	69.9	70.4	69.9	70.5
Hides and leather products	102.5	102.5	102.1	101.6	102.0	102.1	102.5	102.4	102.8
Textile products	71.5	71.6	71.9	71.9	72.5	72.7	73.0	73.3	73.6
Fuel and lighting materials	72.2	72.3	72.5	72.5	72.3	72.6	72.6	72.8	72.8
Metals and metal products	94.9	95.3	95.4	95.4	95.5	95.4	95.5	95.5	95.5
Building materials	92.7	92.8	92.8	93.2	93.1	93.3	93.2	93.3	93.3
Chemicals and allied products	77.0	76.9	76.6	76.5	76.7	76.9	77.0	77.1	77.4
Housefurnishing goods	89.9	89.9	89.9	89.6	89.7	89.7	89.8	89.8	89.7
Miscellaneous commodities	76.9	76.8	76.6	76.6	76.6	76.5	76.9	76.8	76.9
Raw materials	73.9	72.9	72.0	71.1	71.8	71.5	71.9	72.2	72.4
Semimanufactured articles	79.5	79.5	79.2	79.1	79.5	79.4	79.6	79.7	79.8
Manufactured products[1]	81.7	81.5	81.2	80.9	81.0	81.2	81.4	81.4	81.4
All commodities other than farm products	80.6	80.5	80.3	80.0	80.1	80.2	80.5	80.4	80.5
All commodities other than farm products and foods	82.5	82.6	82.7	82.7	82.8	82.9	83.0	83.1	83.2

[1] Formerly "Finished products."

Recent Publications of Labor Interest

MAY 1940

Agriculture

Agriculture in modern life. By O. E. Baker, Ralph Borsodi, and M. L. Wilson. New York, Harper & Bros., 1939. 303 pp., maps, charts.

Presents three points of view as to the problems of agriculture today. The first author gives an analysis of the rural population, the second a plan for rural life embracing self-sufficing homesteads, and the third discusses science and folklore in rural life. The authors also debate the differences and likenesses in their views and the future of agriculture.

Adrift on the land. By Paul S. Taylor. New York, Public Affairs Committee, Inc., 1940. 31 pp., maps, illus. (Public Affairs Pamphlet No. 42.)

Among the questions raised by the author are the following: Shall the mechanization of farming be permitted to follow its own course? Can it be retarded or modified? Can other types of employment be developed that would make the industrialization of agriculture the basis for the building of higher agricultural incomes?

Estatuto agrario de la República del Paraguay. Asunción, Ministerio de Obras Públicas y Colonización, Departamento de Tierras y Colonización, 1940. 57 pp.

This agrarian law of February 29, 1940, provides for individual and collective colonization of public or other undeveloped land, and for installment purchase of urban lots.

Cooperative Movement

Developments in consumers' cooperation in 1939. Washington, U. S. Bureau of Labor Statistics, 1940. 9 pp. (Serial No. R. 1092, reprinted from March 1940 Monthly Labor Review.)

Statistics of farmers' marketing and purchasing cooperatives, 1938–39 marketing season. By R. H. Elsworth. Washington, U. S. Farm Credit Administration, 1940. 34 pp., charts. (Miscellaneous Report No. 21.)

A list of publications of the Farm Credit Administration. Washington, U. S. Farm Credit Administration, 1940. 23 pp.

Many of these publications relate to farmers' cooperatives and some of them are equally valuable for consumers' cooperative groups.

1939 report of Rural Electrification Administration. Washington, 1940. 354 pp., maps, charts, illus.

Shows the development of rural electrification, including electrical cooperatives, and of a new type—the self-help cooperative electricity association, in which the members build the project themselves.

Annual report of the Massachusetts Commissioner of Banks for the year ending December 30, 1939: Part IV, Credit unions. Boston, 1940. 188 pp.

Gives combined statistics and the financial statements of the individual credit unions.

Selected bibliography: Credit unions for industrial employees. Princeton, N. J., Princeton University, Industrial Relations Section, [1939?]. 7 pp.

Contains, besides the references on credit-union literature, a directory of central credit-union organizations and the text of the Federal Credit Union Act.

The people's year book, 1940. Manchester, England, Cooperative Wholesale Society, [1940?]. 299 pp., illus.

An annual compilation of material on the cooperative movement throughout the world, but with especial reference to that in the British Isles. This issue contains much information on the effect of the war on the movement in the various European countries as well as general articles on social developments in Great Britain, the labor movement, etc.

Cost of Living

Clothing expenditures of wage earners and clerical workers. Washington, U. S. Bureau of Labor Statistics, 1940. (Serial No. R. 1071, reprint from February 1940 Monthly Labor Review.)

Family income and expenditure in nine cities of the East Central Region, 1935–36: Vol. I, Family income. By A. D. H. Kaplan and Faith M. Williams. Washington, U. S. Bureau of Labor Statistics, 1939. 538 pp., map, charts. (Bulletin No. 644, Volume I; Study of consumer purchases, urban series.)

Family income and expenditure in selected urban communities of the West Central-Rocky Mountain Region, 1935–36: Vol. II, Family expenditure. By A. D. H. Kaplan and Faith M. Williams. Washington, U. S. Bureau of Labor Statistics, 1940. 313 pp., map, charts. (Bulletin No. 646, Volume II; Study of consumer purchases, urban series.)

Family income and expenditure in selected southeastern cities, 1935–36: Vol. II, Family expenditure. By A. D. H. Kaplan and Faith M. Williams. Washington, U. S. Bureau of Labor Statistics, 1940. 298 pp., map, charts. (Bulletin No. 647, Volume II; Study of consumer purchases, urban series.)

Family income and expenditures—Pacific Region, Plains and Mountain Region Part 1, Family income. Washington, U. S. Department of Agriculture, Bureau of Home Economics, 1939. 276 pp. (Miscellaneous Publication No. 356; Consumer purchases study—farm series.)

The data included in the report are for a 12-month period within the calendar years 1935 and 1936, and relate to 4,218 families in farming sections in central and southern California, Oregon, and Washington.

The shopping basket in war time. London, The Labor Party, 1940. 12 pp.

Shows how the increase in prices owing to the war has reduced workers' purchasing power in Great Britain.

Ģimenu budžeti 1936/37. By P. Davidsons. Riga, Valsts Statistiskā Pārvalde, '1940. 208 pp., charts.

Results of an investigation of the family budgets in Latvia during 1936–37, including data on incomes of wage earners and salaried employees, their average expenditures for food, housing with light and heat, clothing, and sundries, by income groups and localities. The investigation covered 204 families, of whom 73 resided in Riga, 80 in the Provincial cities, and 51 in rural districts.

Printed in Latvian, with summary in French, and French translations of table of contents and table heads.

Economic and Social Problems

California uses the Government corporation. By John McDiarmid. (In American Political Science Review, Evanston, Ill., April 1940, pp. 300–306.)

The article points out that the Government corporation, which is described as "one of the most significant of recent developments in public administration," is not limited to national agencies. Developments in the State of California, extending back to the early twenties, are described as illustrating the growth of this type of public authority at State and local levels.

Economics for the millions. By Henry Pratt Fairchild. New York, Modern Age Books, 1940. 262 pp.

Designed to aid persons without professional training in economics in examining and understanding the development and present status of the economic system. The author describes the current economic "dilemmas" and appraises possible improvements in the economic system.

Getting and spending: The ABC of economics. By Mildred Adams. New York, Macmillan Co., 1939. 125 pp., illus.

An effort to translate the technical terminology of economists into understandable everyday language.

The home market: 1939 edition. By G. Harrison and F. C. Mitchell. London, Geo. Allen and Unwin, Ltd., [1939 ?]. 152 pp.

Statistics of the composition, buying habits, and economic condition of the population of Great Britain. This information was compiled to give the manufacturer and advertiser a comprehensive picture of their customers.

Origins of class struggle in Louisiana. A social history of white farmers and laborers during slavery and after, 1840–1875. By Roger W. Shugg. University, La., Louisiana State University Press, 1939. 372 pp.; bibliography.

Indicates that the structure and relations of classes in Louisiana had been in long-standing conflict but had not come to any issue, with the exception of the Civil War and the ending of slavery, "because of the bondage of one race, the military rule of another, and the institutions and conditions," in the periods reviewed.

Employment, wages, and international trade. Geneva, International Labor Office, 1940. 107 pp., charts. (Studies and reports, Series B (Economic Conditions), No. 32.)

A study, prepared in accordance with the instructions of the Governing Body of the International Labor Office, of the kind of changes which took place in the foreign trade of various countries, in order to discover for any country where an important change had been effected in exports and/or imports, the trends in total employment, and the changes which occurred in workers' incomes.

Productivity, wages, and national income. By Spurgeon Bell. Washington, Brookings Institution, Institute of Economics, 1940. 344 pp., charts. (Publication No. 81.)

One of a series of studies of the relation of the distribution of income to economic progress. Extensive statistical materials for the past two decades are presented on wages, investment, productivity, employment, and shares of income. An effort is made to analyze the causes of the failure of production and employment to increase as rapidly as productivity. There is emphasis on the point of view that the passing on of savings from increasing productivity to consumers, through lower prices, would provide a more effective stimulus to demand and to volume of production and employment than would an increase of income either to employees or to the owners of capital. The method of assuring price reductions corresponding to increased productivity is not discussed.

Public control of business. By Harlan Fiske Stone. New York, Howell, Soskin & Co., 1940. xx, 324 pp.

Sections with special labor interest are on employer obligations to labor, competition and monopoly, and range of Federal powers.

Houseboat and river-bottoms people: A study of 683 households in sample localities adjacent to the Ohio and Mississippi Rivers. By Ernest Theodore Hiller. In cooperation with the Federal Emergency Relief Administration and the National Research Project of the Works Progress Administration. Urbana, University of Illinois Press, 1939. 146 pp., bibliography. (Illinois studies in the social sciences, Vol. XXIV, No. 1.)

Among the major subjects discussed are: Squatter occupancy of marginal land; river self-help pursuits; vocational assortment; unemployment, mutual aid, and relief; and types of shelter and residential mobility.

The location of industry and the depressed areas. By S. R. Dennison. London, Oxford University Press, 1939. 216 pp.

This volume is divided into two parts. In the first the author deals with the theory of industrial location and the factors involved in putting a scientific plan for location into effect. The second is devoted to the problem of the depressed areas and the drift of industry to the South of England.

Japanese industry: Its recent development and present condition. By G. C. Allen. New York, Institute of Pacific Relations, International Secretariat, 1940. 124 pp.

An analysis of conditions in the Far East, with special reference to the main issues to be considered in any future efforts to adjust international relations in that region.

Education and Guidance

Clinical organizations for child guidance within the schools. By Elise H. Martens. Washington, U. S. Office of Education, 1939. 78 pp. (Bulletin, 1939, No. 15.)

In 1896 the first psychological clinic in this country was set up at the University of Pennsylvania. In 1909 the first psychiatric clinic for children was organized in Chicago. Three decades later the number of communities served by psychiatric child-guidance clinics is somewhere between 650 and 700.

Democracy's challenge to education. Prepared under the editorship of Beulah Amidon of Survey Graphic. New York, Farrar & Rinehart, Inc., 1940. 263 pp., charts, illus.

Reviews various goals of education, describes the schools we keep, and counsels as to where we must take hold. In the final chapter, entitled "Answering the Challenge," the author discusses educational mass production, schools for today and tomorrow, and the beginnings and the ends.

Education and economic well-being in American democracy. Washington, National Education Association of the United States and American Association of School Administrators, 1940. 227 pp.

It is stated in the report that the educational program proposed therein "promises in the long run to more than pay for itself through resulting increases in total national earned income."

The status of the teaching profession. Washington, National Education Association of the United States, Research Division, 1940. (National Education Association Research Bulletin, March 1940; 28 pp.)

Includes data on the general composition of the teaching population; educational preparation and certification; professional experience and mobility; salaries and economic condition; professional load; provisions for tenure and retirement; professional associations of teachers; mental and physical health; and academic freedom.

Court decisions on teacher tenure, reported in 1939. Washington, National Education Association of the United States, Committee on Tenure, 1940. 34 pp.

One common type of case in the year under review concerned the adjustment of new legislation to individual employment status.

Our Constitution and Government. Lessons on the Constitution and Government of the United States, for use in the public schools by candidates for citizenship. Prepared by Catheryn Seckler-Hudson. Washington, U. S. Immigration and Naturalization Service, 1940. 400 pp.

Minimum essentials of the individual inventory in guidance. By Giles M. Ruch and David Segel. Washington, U. S. Office of Education, 1940. 83 pp. (Vocational Division Bulletin No. 202; Occupational Information and Guidance Series No. 2.)

Outlines the general character of the individual inventory, the important types of entries to be made, and takes up in some detail what can be done and what cannot be done in the scientific evaluation of certain aspects of the individual.

El libro del huaso Chileno. Santiago, Instituto de Información Campesina, 1939. 96 pp. illus.

A reader prepared by the Government of Chile to supply elementary material, profusely illustrated, to teach agricultural laborers and their families simple lessons in patriotism, health, morality, economy, recreation, etc., and which is to be distributed free of charge to the persons for whom intended.

Employment and Unemployment

Proceedings of the twenty-seventh annual convention of the International Association of Public Employment Services, held at Hotel Roosevelt, New Orleans, La., April 12, 13, and 14, 1939. [General secretary, Charles L. Hodge, Railroad Retirement Board, Washington, D. C.]. 141 pp.

Of the 12 panel discussions, 6 were centered respectively on the following problems: Public relations; the guidance and placement of juniors; have we arrived at an effective interviewing technique? getting results from a local field-visit program; can the public employment service cooperate with placement agencies of organized labor? and new fields for public employment offices.

Facts about unemployment. By John N. Webb and Joseph C. Bevis. Washington, U. S. Work Projects Administration, 1940. 34 pp. (Social Problems, No. 4, 1939.)

One of a series of pamphlets designed to present accurate nontechnical data on social problems of wide interest.

The prison problem in Virginia. Washington, U. S. Prison Industries Reorganization Administration, [1939?]. 87 pp.; mimeographed.

Information on prison industries and employment of prisoners is included.

Unemployment survey, Honolulu and rural Oahu, December 1939. Honolulu, Honolulu Chamber of Commerce, in collaboration with Hawaii Territorial Planning Board, [1940?]. 21 pp., map.

According to this study, 9,315 persons (including 1,309 WPA workers) were unemployed in Honolulu and rural Oahu in December 1939.

General Reports

Industrial banking—a phase of consumer credit. By Margaret Grobben. New York, Consumer Credit Institute of America, Inc., 1940. 116 pp.

This fascinating oil business. By Max W. Ball. Indianapolis and New York, Bobbs-Merrill Co., 1940. 444 pp., maps, illus.

A nontechnical account of the nature of petroleum, its uses, and the processes of producing, refining, transporting, and marketing. There are chapters on research, on the various oil fields outside of the United States, and on oil and the war. The volume does not deal with labor or with the economic and social problems of the petroleum industries.

Third annual report of the President of the Philippines to the President and the Congress of the United States, covering the calendar year ended December 31, 1938. Washington, Government Printing Office, 1940. 35 pp.

Presents data on Government-owned corporations; labor and social justice; immigration and emigration; and other subjects.

Actuarial technique and financial organization of social insurance: Compulsory pension insurance. By Lucien Feraud. Geneva, International Labor Office, 1940. 568 pp. (Studies and Reports, Series M (Social Insurance), No. 17.)

Contains separate reports for the following European countries: Belgium, Czechoslovakia, France, Germany, Great Britain and Italy.

Anuario estadístico de los Estados Unidos Mexicanos, 1938. México, D. F., Secretaría de la Economía Nacional, Dirección General de Estadística, 1939. 302 pp.

Contains Mexican occupational statistics through the census of 1930; statistics of occupational associations, strikes, average wages by occupations, industrial accidents, and wholesale and retail prices and indexes through 1936; and figures on unemployment through 1937.

The second Six-Year Plan, 1941–1946. Mexico, Mexican Revolution Party, [1939?]. 144 pp.

Gives, in the text of the second Six-Year Plan for Mexico approved by the Mexican Revolution Party in November 1939, chapters presenting the party platform for agrarian reform and the solution of problems of labor and social welfare, to be achieved in the years 1941–46.

Argentina económica, 1939. By Rafael Garcia-Mata and Emilio Llorens. Buenos Aires, Compañía Impresora Argentina, S. A., 1939. 272 pp.

Contains much useful reference material concerning Argentina, including industrial personnel figures for large industrial groups from the census of 1935; and for the textile industry for 1937; and an account of the movement of unemployment since 1932 and of agricultural colonization since 1853.

Extracto estadístico del Perú, 1938. Lima, Ministerio de Hacienda y Comercio, Dirección Nacional de Estadística, 1939. xlvi, 644 pp. charts.

Gives through 1938, for the city of Lima, certain wholesale and retail prices and index numbers, cost-of-living index numbers, and statistics of industrial accidents; for the Department of Lima, the number of registered unemployed; and for the country as a whole, employment and total wages in the mining industry; and for the country as a whole through 1937, data on number of workers employed, working hours, and daily wages in the rice, wheat, and cotton industries, and through 1938 in the sugar industry, for both field and mill work.

Censo sindical carioca de 1938 (Brazil). (In Boletim, Ministério do Trabalho, Indústria, e Comércio, Rio de Janeiro, November 1939, pp. 77–98, and December 1939, pp. 126–164).

A report of the census of 1938 of professional associations in the Federal District, Brazil, treating separately associations of employers, of employees, of persons engaged in the liberal professions, and persons in business for themselves, classified by field of activity, by sex, and whether national or alien, with comparative statistics from earlier censuses.

De la France d'avant guerre à la France d'aujourd'hui. By Charles Rist et Gaëtan Pirou. Paris, Librairie du Recueil Sirey, 1939. 594 pp.

Traces the changes in the economic and social structure of France during the past 25 years.

Indian coal statistics, 1937. Delhi, India, Department of Commercial Intelligence and Statistics, 1939. 92 pp., charts.

The tables in this report include, among other statistics, figures on India's coal production and prices, and on the capital and labor employed in the coal-mining industry in that country.

Jahrbuch des Reichsarbeitsdienstes, 1939. Herausgegeben von Oberstarbeitesführer Müller-Brandenburg. Berlin, Volk und Reich Verlag, 1939. 108 pp., maps, illus.

This yearbook contains information regarding the compulsory labor service in Germany in 1939, including the compulsory labor of young women.

Health and Industrial Hygiene

Manual of industrial health hazards. By Joseph B. Ficklen. West Hartford, Conn., Service to Industry, 1940. 176 pp., charts, illus.

The report covers the occurrence and uses, the properties, clinical symptomatology, permissible standards, physiological responses, and methods, for the evaluation of over ninety noxious vapors, gases, and dusts. There is a chart showing potential health hazards in 108 manufacturing classifications.

Basophilic aggregation test for lead absorption and lead poisoning. Columbus, Ohio Department of Health, 1940. 7 pp., illus.; mimeographed.

Cancer mortality in the United States: II, Recorded cancer mortality in geographic sections of the death registration States of 1920, from 1920 to 1935. Washington, U. S. Public Health Service, 1940. 74 pp., charts. (Public Health Bulletin No. 252.)

National health insurance and contributory pensions insurance. An outline of the schemes in the United Kingdom of Great Britain and Northern Ireland. London, Ministry of Health, 1939. 34 pp.

Proceedings of fourth fall meeting of Air Hygiene Foundation of America, Inc., November 1939. Pittsburgh, 1940. 73 pp.

The papers presented at the meeting dealt with medical, engineering, legal, labor, and public-relations aspects of industrial health.

The choice of methods of roentgen examination of the chest for diagnostic surveys. Pittsburgh, Air Hygiene Foundation of America, Inc., 1940. 73 pp., diagrams, illus. (Medical Series, Bulletin No. III.)

The report gives the findings of a study at the University of Pennsylvania. The object of the investigation was to develop practical X-ray procedures for use where large groups of workmen are given physical examinations.

Silicosis: Proceedings of the International Conference held in Geneva, August 29 to September 9, 1938. Geneva, International Labor Office, 1940. 223 pp., charts, illus. (Studies and Reports, Series F, No. 17.)

There were 10 items on the agenda covering discussion of present knowledge of the pathology of silicosis, pneumoconiosis in coal miners and workers in other dusty trades, methods and standards of early diagnosis, and new methods of dust investigation, preventive measures, and methods of treatment.

Report of the Director-General of Public Health of New South Wales (Australia) for the year 1937. Sydney, Minister for Public Health, 1939. 140 pp., charts.

The section of the report dealing with industrial hygiene includes brief reports on hazards in abrasive powder and soap manufacturing and in glass cutting, lead poisoning in different occupations, and the results of a study of ventilation of theaters, shops, garages, etc.

Workers' health hazards—today and tomorrow: Detection and control of silicosis and other occupational diseases. New York, State Department of Labor, 1940. 31 pp.

A progress report to the Legislature of New York showing what the State Department of Labor has been doing with the special funds appropriated to prevent and control occupational diseases.

Are the citizens of Pennsylvania neglected when ill or injured? Survey of sickness service and facilities in Pennsylvania. Harrisburg, Medical Society of the State of Pennsylvania, 1939. 78 pp.

The survey, which was made by counties, showed a large amount of fine medical care given by physicians and institutions. It is stated in the report that if there are many persons in the State who fail to receive sickness service, paid for or otherwise, it cannot be primarily because of lack of personnel or agencies offering or volunteering to arrange for such service.

Housing

Improvement of housing in cities. Washington, Chamber of Commerce of the United States, 1940. 20 pp.

This report was prepared by a committee on public housing, for consideration at the next annual meeting of the Chamber. It deals with the Federal public housing program, factors that affect housing, and the need for community action.

Housing in Scandinavia. By John Graham, Jr. Chapel Hill, University of North Carolina Press, 1940. 223 pp., illus.

A record of housing based on first-hand information obtained by the author on a tour of Norway, Sweden, Denmark, and Finland.

Industrial Accidents and Workmen's Compensation

Principal features of workmen's compensation laws, as of January 1, 1940. By Charles F. Sharkey. Washington, U. S. Bureau of Labor Statistics, 1940. (Serial No. R. 1090, reprint from March 1940 Monthly Labor Review.)

Wetenschappelijke balansen van het ongevallenfonds en van het landbouw-ongevallenfonds op 31 December 1938. Amsterdam, Rijksverzekeringsbank, 1939. 81 pp.

Annual report on accident insurance funds in the Netherlands up to the end of 1938, including accident statistics in industries and agriculture, and finances of the funds.

Accidentes del trabajo y enfermedades profesionales (Uruguay). Montevideo, Banco de Seguros del Estado, 1939. 355 pp., chart, illus.

A compilation of Uruguayan legislation through August 31, 1939, relating to prevention of and compensation for industrial accidents and occupational diseases, with the text of proposed provisions to reform this legislation submitted by the directorate of the State Insurance Bank, and an exposition of the proposed reform.

Industrial Relations and Labor Conditions

Settlement of grievances under union agreements. Washington, U. S. Bureau of Labor Statistics, 1940. (Serial No. R. 1072, reprint from February 1940 Monthly Labor Review.)

Elections by New York and Massachusetts labor relations boards. Washington, U. S. Bureau of Labor Statistics, 1940. (Serial No. R. 1091, reprint from March 1940 Monthly Labor Review.)

Labour and democracy in the United States of America. By Kenneth White. London and Liverpool, Hodder & Stoughton, Ltd., University Press of Liverpool, 1939. 382 pp.

A critical study of American labor unions, with especial attention to recent events. Written by a British student.

The T. V. A. labor relations policy at work: Successful cooperation between public power and organized labor in the public interest. By Judson King. Washington, The National Popular Government League, 1940. 59 pp. (Bulletin No. 192.)

This describes the cooperation between the Tennessee Valley Authority management and the organized employees, represented by the Tennessee Valley Trades and Labor Council, composed of representatives of 15 international unions. Together they have agreed upon the right of collective bargaining; freedom of employees to join or not to join unions; the 5-day, 40-hour week, time and a half for overtime, and vacations with pay; and apprentice and advanced training. Labor cooperates in the health and safety program. The author concludes that the TVA experiment demonstrates there can be successful cooperation and collective bargaining on public power projects.

Role of a labor organization in planning public social welfare. By Mark Starr. (In New York State Conference on Social Work [Papers, 1939], Rochester, 1939, pp. 157–160.)

Maritime Labor Board: Report to the President and to the Congress, March 1, 1940. Washington, 1940. xiii, 262 pp.

This report was prepared in compliance with the 1938 amendment to the Merchant Marine Act of 1936. It includes a history of labor relations and union organization in the maritime industry and recommendations regarding future methods of dealing with employer-labor relations in the merchant marine service.

Merit rating in industry. By Asa S. Knowles. Boston, Northeastern University, College of Business Administration, Bureau of Business Research, 1940. 41 pp., diagrams. (Bulletin No. 1.)

This report presents the introductory background material of the study; the findings of a survey on current merit rating for employees; the selection of the traits for rating; the development of a program for merit rating; and the hazards of rating systems.

Civil service in public welfare: A discussion of effective selection of public social-work personnel through the merit system. By Alice Campbell Klein. New York Russell Sage Foundation, 1940. 444 pp.

Profit-sharing: Selected references, 1923–1939. Compiled by Ruth Fine. Washington, U. S. Department of Labor Library, October 1939. 18 pp.; mimeographed.

The new techniques for supervisors and foremen. By Albert Walton. New York, McGraw-Hill Book Co., 1940. 233 pp.

An application of psychological principles to management problems.

Labor conditions in Latin America. Washington, U. S. Bureau of Labor Statistics, 1940. 35 pp. (Serial No. R. 1082, Latin-American series No. 3; reprint from January and February issues of Monthly Labor Review.)

A chance for everybody: A liberal basis for the organization of work. By Hyacinthe Dubreuil. London, Chatto & Windus, 1939. 270 pp.

The author, a proponent of workers' productives, advances a plan which he thinks would eliminate workers' discontent by creating small autonomous groups within private business enterprise, each under an elected foreman, such units to act as contracting groups and be paid for their labor on a contractual basis. This would give them practically the status of independent enterprises. The plan is based on the experiences of such groups as the dockers' "nations" in Belgium and the "commandites" in the French printing industry.

Legal Aid

Sixty-fourth annual report of the Legal Aid Society (of New York), for the year 1939. New York, 1940. 61 pp.

In 1939 the total clients who sought the services of the society numbered 33,895—a decline of about 1,600 as compared with the 1938 record.

Migration

California migrants. By Samuel E. Wood. (In Sociology and Social Research, Los Angeles, January–February 1940, pp. 248–261.)

Minimum Wage

First annual report of the Administrator of the Wage and Hour Division, United States Department of Labor, for the calendar year 1939. Washington, 1940. 163 pp.

A statement on the activities of the Wage and Hour Division in administering the Fair Labor Standards Act, which was taken from press releases preceding publication of this report, appeared in the February 1940 issue of the Monthly Labor Review.

Progress of State minimum-wage legislation, 1939. By Louise Stitt and Florence P. Smith. Washington, U. S. Bureau of Labor Statistics, 1940. (Serial No. R. 1080, reprint from February 1940 Monthly Labor Review.)

Negro Workers

The urban Negro worker in the United States, 1925–1936: Volume II, Male Negro skilled workers in the United States, 1930–1936. By Robert C. Weaver. Washington, U. S. Department of the Interior, Office of the Adviser on Negro Affairs, 1939. 87 pp., charts.

Report on the occupational shiftings of male Negro skilled workers in the United States during 1930–1936. The findings are based on a sample of 78,330 of these workers in 81 cities in different sections of the country.

Occupations and Occupational Training and Guidance

Aviation courses, federally aided, 1939. By Robert W. Hambrook. Washington. U. S. Office of Education, [1940?]. 16 pp. (Misc. 2295.)

Lists the federally aided public-school aviation courses by States, towns, schools, and subjects. Also contains some information on part-time classes for apprentices and apprenticeship in aircraft-manufacturing and air-line work.

The canning industry in Ohio. By Mary J. Drucker. [Columbus?], National Youth Administration in Ohio, 1939. 77 pp. (Occupational Study No. 4.)

Gives the history and scope of the canning industry, tells how vegetables, fruits and other products are canned, and reports on qualifications and training for work in the industry and on earnings and labor conditions in canning factories.

Youth—their jobs, their health, their schooling. A program for action recommended by the American Youth Commission of the American Council on Education. Washington, 1940. 10 pp.

The recommendations concerning jobs were summarized in the January 1940 issue of the Monthly Labor Review.

Your job and the Farm Credit Administration—a handbook for employees. Washington, U. S. Farm Credit Administration, 1939. 69 pp., map, chart.

Intended for employees of the Farm Credit Administration, this pamphlet gives pertinent information regarding the field of work, hours, working conditions, annual and sick leave, etc., of that agency.

Findings of the Pine Mountain Youth Guidance Institute held at Pine Mountain Settlement School, Pine Mountain, Harlan County, Kentucky, August 20–26, 1939. Pine Mountain, Ky., Pine Mountain Settlement School, [1939]. 33 pp.

Contains recommendations on health, general education, use of leisure time, and vocational adjustment.

Household workers. By Jean Collier Brown. Chicago, Science Research Associates, 1940. 48 pp. (Occupational Monographs, No. 14.)

Reviews the characteristics of housework as of today and yesterday, describes the different types of workers in this field. and the need of training courses for domestic service, and gives data on wages, hours, working conditions, how to find a job, and the future of household employment.

Jobs in the foundry. By Ernest L. Bowman. Chicago, Science Research Associates, 1940. 48 pp., illus. (Occupational Monographs, No. 13.)

The character of foundry work, the earnings of the workers, and trends in wages are among the subjects taken up in this pamphlet.

Occupations in radio. By Kenneth G. Bartlett and Douglass W. Miller. Chicago, Science Research Associates, 1940. 48 pp., illus. (Occupational Monographs, No. 12.)

Tells of the rise of the radio, how radio stations are organized, radio network organization, and employment with radio service organizations; and gives information on radio jobs, qualifications, and training, for both men and women.

Training for the job—vocational education for adults. By Frank Ernest Hill. New York, American Association for Adult Education, 1940. 160 pp.

According to this report, few school systems are equipped to serve effectively the mass of adults. Rural districts and the South are especially weak in such facilities. The work of private agencies is sporadic. The tremendous volume of Federal activity is sometimes notable for originality but frequently shows the defect of emergency planning and uncertainty regarding the future. Adult counseling is "scandalously neglected" and placement is declared to be experimental and haphazard.

Opportunities in Government employment. By Lawrence James O'Rourke. New York, Garden City Publishing Co., 1940. 307 pp.

Among the major subjects with which this volume deals are: Government as an employer; the Postal Service; mechanical and manual occupations; positions requiring legal training; medicine and related fields; agriculture, forestry, and conservation; the physical sciences; law enforcement and related positions; the foreign service of the United States; training for advancement in public service; and looking toward the future.

The story of meat. By Robert B. Hinman and Robert B. Harris. Chicago, Swift and Co., 1939. 291 pp., illus.

One of the 15 chapters deals with vocational opportunities in the meat industry.

The textile industry in South Carolina—a vocational guidance study. Columbia, National Youth Administration for South Carolina, 1939. Various paging, map, illus.

Includes data on the development of mechanization, character of the labor supply, job descriptions, advancement, working conditions, wages and hours, and labor organizations.

Social Security

[*Administrative procedure of the*] *Social Security Board.* Washington, U. S. Attorney General's Committee on Administrative Procedure, 1940. Various paging, mimeographed. (Monograph No. 16.)

Old-age and survivors' insurance for workers and their families. Washington, U. S. Social Security Board, 1940. 14 pp.

How to calculate benefits under Federal old-age and survivors' insurance. Washington, U. S. Social Security Board, 1940. 14 pp.

The future in social security. By Arthur J. Altmeyer. Speech delivered at Thirteenth Annual National Conference of the American Association for Social Security, New York, March 30, 1940. Washington, [U. S. Social Security Board?], 1940. 9 pp., mimeographed.

Effects of social security legislation on company operating costs (with particular reference to pension plans). By H. Walter Forster and P. F. Boyer. New York, American Management Association, 1940. 23 pp. (Financial Management Series No. 61.)

The subject of supplementary company-pension plans in relation to social-security legislation is considered from the standpoint of cost in relation to pay roll, and the effect of social-security legislation on production and operating costs, especially as regards the situation in Ohio, is discussed.

A brief reading list on the Social Security Act, including references on the amendments of 1939. Washington, U. S. Social Security Board, 1939. 12 pp.

100 questions and answers on new social-security program. Washington, U. S. Social Security Board, 1939. 24 pp.

Memoria, Julio 1938–Diciembre 1939 (Cuba). Habana, Caja General de Jubilaciones y Pensiones de Empleados y Obreros de Ferrocarriles y Tranvias, 1940. 134 pp., folders; mimeographed.

Statistics of the operation of the Cuban General Retirement and Pension Fund for Railway and Street-railway Salaried and Wage-earning Employees, for the period July 1938 to December 1939, showing receipts and expenditures of the Fund and retirement and pension benefits granted.

Sixth annual report of the Nova Scotia Old-Age Pensions Board, for the year ending November 30, 1939. Halifax, N. S., 1940. 23 pp.

Riksförsäkringsanstalten, år 1938. Stockholm, Reksförsäkringsanstalten, 1940 36 pp.

Annual report on Swedish social-insurance funds for 1938.

Syketrygden, 1938. Oslo, Rikstrygdeverket, 1940. 94 pp.

Annual report on sickness insurance in Norway in 1938, including both obligatory and voluntary insurance.

Printed in Norwegian with French translation of table of contents.

Unemployment Insurance and Relief

Methods of clearance between unemployment compensation and relief agencies. Washington, Social Science Research Council, Committee on Social Security, 1940. 52 pp. (Pamphlet Series No. 3.)

The study deals with unemployment compensation and relief relationships, with special reference to existing clearance methods between the two systems. Suggestions for improving present methods are included.

Administration of relief in New York City. New York City, Department of Investigation, 1940. 345 pp., charts.

A critical analysis of the various phases of relief administration in New York City, with statistics.

Wages and Hours

Work and wages in 1939. Washington, U. S. Bureau of Labor Statistics, 1940. (Serial No. R. 1088, reprint from March 1940 Monthly Labor Review.)

Hourly earnings in dyeing and finishing of cotton, rayon, and silk. Washington, U. S. Bureau of Labor Statistics, 1940. (Serial No. R. 1067, reprint from January 1940 Monthly Labor Review.)

The wage and hour structure of the furniture-manufacturing industry, October 1937. Washington, U. S. Bureau of Labor Statistics, 1940. 121 pp., charts, illus. (Bulletin No. 669.)

Earnings and hours in the men's robe industry, 1938. Washington, U. S. Bureau of Labor Statistics, 1940. (Serial No. R. 1095, reprint from March 1940 Monthly Labor Review.)

Wages, hours, and working conditions of union street-railway employees June 1, 1939. Washington, U. S. Bureau of Labor Statistics, 1940. (Serial No. R. 1078, reprint from February 1940 Monthly Labor Review.)

L'évolution des salaires en France depuis la guerre (étude statistique). By Pierre-Jean Lavirotte. Paris, Librairie du Recueil Sirey, 1939. 215 pp., charts.

A statistical study showing changes in wages in France since the outbreak of the World War. Data are shown by industry, classes of skill, and geographic area.

Lönestatistisk årsbok för Sverige, 1938. Stockholm, Socialstyrelsen, 1940. 117 pp.

Contains wage statistics of Sweden for 1938, including wages in industries and trades, agriculture, and navigation, by hour, day, and year, by occupation and locality, and a comparison with wages in previous years, beginning with the average wage for the years 1913–15.

Indian tea statistics, 1937. Delhi, India, Department of Commercial Intelligence and Statistics, 1939. 41 pp. (43d issue.)

Includes 1937 figures on employment in the industry, and average monthly wages of laborers in tea gardens of the Province of Assam, in 1935–36 and 1936–37.

Wartime Labor and Economic Conditions

An ABC of wartime law. By Robert S. W. Pollard. London, Hamish Hamilton, Ltd., 1939. 127 pp.

Answers questions as to the wartime duties and rights of British citizens under emergency and regular legislation affecting pensions, industrial disputes, rent restrictions, etc.

Military Training Act and Reserves and Auxiliary Forces Act. London, National Council of Labor, Transport House, [1940?]. 7 pp.

A summary of the principal administrative provisions of the acts, and of regulations issued thereunder. Provisions are made in this legislation for payment of family allowances to territorials and reservists.

The economic effort of war. By R. W. B. Clarke. London, George Allen & Unwin, Ltd., 1940. 251 pp.

The chapters with special labor interest are on "Civil consumption" and "The Nation's manpower." It is estimated that in Britain "the civil population will have to accept a reduction of between 35 and 40 percent in its spending as the war effort reaches its peak." The Nation's peacetime manpower is estimated at 22,020,000 persons, but the number available during the war, when the armed forces are deducted and the peacetime unemployed workers are reabsorbed, is only 19,710,000 workers "to produce the national income." It is assumed that by a 10 percent increase in hours there would be an equivalent increase in the working force. Many studies, including the work of H. M. Vernon and the Industrial Health Research Board in England, indicate, however, that such a change in hours would be accompanied by a material reduction in man hour out put.

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U. S. GOVERNMENT PRINTING OFFICE: 1940

NEW PUBLICATIONS
UNITED STATES DEPARTMENT OF LABOR

Bureau of Labor Statistics

Manual on industrial-injury statistics. Bulletin No. 667.

The wage and hour structure of the furniture-manufacturing industry, October 1937. Bulletin No. 669.

Wages, hours, and working conditions in union bakeries, June 1, 1939. Bulletin No. 673.

Money disbursements of wage earners and clerical workers in—

Eight cities in the East North Central region, 1934–36. Bulletin No. 636. (In press.)

Eleven cities of the North Atlantic region, 1934–36. Bulletin No. 637, Volume II.

Study of consumer purchases—

Nine cities of the East Central region, 1935–36. Bulletin No. 644. Volume I— Family income.

Selected urban communities in the West Central–Rocky Mountain region, 1935–36. Bulletin No. 646, Volume II—Family expenditure.

Southeastern region, 1935–36. Bulletin No. 647, Volume II—Family expenditure in three cities.

Family expenditure in selected cities, 1935–36. Bulletin No. 648, Volume V—Medical care; Volume VI—Travel and transportation (in press).

Children's Bureau

Children in a Democracy—General report adopted by the White House Conference on Children in a Democracy, January 19, 1940, Washington, D. C.

Junior placement—A survey of junior-placement offices in public employment centers and in public-school systems of the United States. Publication No. 256.

Division of Labor Standards

Occupational poisoning in the viscose-rayon industry. Bulletin No. 34.

Proceedings of the Sixth National Conference on Labor Legislation. Bulletin No. 35.

Women's Bureau

Legal status of women in the United States of America. Report for West Virginia. Bulletin No. 157–47.